

# Reflections on the ethical and legal implications of performing Electroconvulsive Therapy

## Reflexões acerca das implicações éticas e legais da realização da Eletroconvulsoterapia

## Reflexiones sobre las implicaciones éticas y legales de realizar Terapia Electroconvulsiva

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**How to cite:** Moraes-Filho IM, Sousa TV, Carvalho-Filha FSS, Pereira MC, Arantes AA, Silva MVRS. Reflections on the ethical and legal implications of performing Electroconvulsive Therapy. REVISA. 2021;10(4): 633-5. Doi: <https://doi.org/10.36239/revisa.v10.n2.p633a635>

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Received: 22/07/2021

Accepted: 19/09/2021

Electroconvulsive therapy (ECT), also known as electroshock, is a psychiatric treatment, in which alterations in the electrical activity of the brain are caused, induced by means of passage of electric current under the effect of general anesthesia, with the purpose of inducing a convulsive crisis that lasts around 30 seconds. Treatment is done in sessions and the number of applications is defined by the psychiatrist.<sup>1</sup>

Regarding the legal aspects of the use of ECT are addressed by few authors, who mention only the recognition of this treatment by the Federal Council of Medicine (CFM) and take into account the importance of this therapeutic method and the care that should be used during treatment.<sup>2</sup>

Thus, the constitutionality of invasive treatments such as electroshock is not solved only by recourse to the scientific argument, so its use is inevitably regulated by the will of those involved. The knowledge of both the family and the user who will be submitted to treatment are indispensable conditions for the ethical and legal support of the procedure and for its effectiveness.<sup>3</sup>

However, the Ministry of Health concerns that the indiscriminate use of ECT is not made as a form of treatment, even though it is recognized as a therapeutic resource for the treatment of stress and depression in extreme cases. It is related to corporal punishment and disciplinary control. It is imperative to note that ECT disappeared from Europe at the end of World War II, but was abolished from the public mental health network in Brazil until the 1980s.<sup>4</sup>

Currently, psychiatric associations and societies in several countries have been in favor of ECT and use it as treatment, such as Australia, Canada, New Zealand, the United Kingdom and the United States. The concern is its use without the safety of anesthesia.<sup>4</sup>

Similarly, some protocols established for performing the ECT indicate that before the procedure, the patient should undergo a general clinical consultation with preanesthetic evaluation, composed of requests for complementary tests such as: electrocardiogram (mainly in the presence of clinical comorbidities), blood count, fasting glycemia, ions, renal function, liver and may also be requested other tests based on the need of each case. Then, all necessary clarifications/guidance are made to the patient and his/her guardian who will proceed with the signing of the consent form.<sup>5,6</sup>

Thus, ethical aspects are generally not clearly addressed in the scientific literature. The approaches are based on indications, use of more modern equipment, performing the procedure following the criteria of sedation and others. However, official positions that warn about limits and restrictions on the use of ECT are not mentioned, such as the criticisms and reflections so deeply addressed by the psychiatric reform.<sup>6</sup>

The principles of psychiatric reform aggregate discussions about ethics and humanization in psychiatry in their own. Treating the disease, always seen as incurable is not the focus, caring for people, including them in society, treating concrete subjects, real people is the goal. Moreover, it is essential to remember that the consent of the person is fundamental before subjecting them to any type of intervention.<sup>6,7</sup>

At the same time, the psychiatric reform arose in order to question the nursing home and the fragmented medical practice and to humanize care, making an emphasis on active rehabilitation and social inclusion, to the detriment of custody and segregation.<sup>21</sup> Thus, new mental health care services and ways of assisting more integrated and individualized, were created, in compliance with ethical principles linked to participatory care.<sup>6,7</sup>

The wide use of psychotropic drugs in clinical practice needs to be discussed, as well as the use of ECT and other procedures without proper observance of side effects. There is a strong tendency to medicate and an expectation in receiving the medication. It is currently in people's unconscious that pain, anxiety, sadness and other dysfunctions need to be medicalized, given the need for rapid response to all diseases, causing the methods or forms of application of available therapies to be questioned.<sup>8-9</sup>

## Acknowledgement

This research did not receive funding for its realization.

## References

1. Salleh MA, Papakostas I, Zervas I, Christodoulou G. Eletroconvulsoterapia: critério de recomendações da Associação Mundial de Psiquiatria. *Archives of Clinical Psychiatry* (São Paulo). 2006;33(5):262-267.
2. Conselho Federal de Medicina (CFM). Resolução nº 1.640. Dispõe sobre a eletroconvulsoterapia e dá outras providências. [Internet] Brasília; 2002 [acesso em 01 jun. 2021]. Disponível: [http://www.portalmédico.org.br/resolucoes/CFM/2013/2057\\_2013.pdf](http://www.portalmédico.org.br/resolucoes/CFM/2013/2057_2013.pdf)
3. Silva JLP. Eletroconvulsoterapia, não. Eletrochoque. Responsabilidades, Revista interdisciplinar do programa de atenção Integral ao Paciente judiciário do TJMJ. 2012; (2) 1: 35-54.
4. Machado FB, Moraes-Filho IM, Fidelis A, Almeida RJ, Nascimento MSSP, Carneiro KC. Eletroconvulsoterapia: implicações éticas e legais. *Rev. Cient. Sena Aires*. 2018; 7(3): 235-47.
5. Ministério da Saúde (BR), Secretaria-Executiva, Subsecretaria de Assuntos Administrativos, Coordenação-Geral de Documentação e Informação, Centro Cultural da Saúde. Memória da Loucura: apostila de monitoria. Brasília (DF): MS; 2005
6. Elkis H, Meltzer H Y. Esquizofrenia refratária. *Rev. Bras. Psiquiatr.* 2007; 29(Supl 2 ): S41-S47.
7. Maciel SC, Barros DR, Silva AO, Camino L. Reforma psiquiátrica e inclusão social: um estudo com familiares de doentes mentais. *Psicol. cienc. Prof.* 2009; 29(3): 1-12.
8. Moraes Filho IM, Dias CCS, Pinto LL, Santos OP, Félix KC, Proença MFR, et al. Associação de estresse ocupacional e uso de psicotrópicos por docentes da área da saúde. *Rev Bras Promoç Saúde*. 2019; 32:9007.
9. José BB, Cruz MCC da. Eletroconvulsoterapia como prática psiquiátrica: revisão de literatura. *Arch Health Invest*. 2019;8(10):628-633.

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# Implications of COVID-19 for individuals with psychoactive substance use disorders: an overview

## Implicações da COVID-19 para indivíduos com transtornos relacionado ao uso de substâncias psicoativas: revisão overview

## Implicaciones de COVID-19 para individuos con trastornos del consumo de sustancias psicoactivas: revisión general

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**How to cite:** Volpato RJ, Vargas D, Pereira CF, Marques DA, Ferreira RS, Aguiar TF, et al. Implications of COVID-19 for individuals with psychoactive substance use disorders: an overview. REVISA. 2021; 10(4): 636-55. Doi: <https://doi.org/10.36239/revisa.v10.n4.p636a655>

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Received: 12/07/2021  
Accepted: 19/09/2021

### RESUMO

**Objetivo:** explorar as implicações biopsicossociais da COVID-19 para indivíduos com transtornos relacionado ao uso de substâncias psicoativas, bem como as estratégias de atenção a essa população durante o surto de SARS-CoV-2. **Método:** estudo descritivo que incluiu diferentes desenhos de estudos em bases de dados virtuais para mostrar o crescimento do número de publicações na área da saúde mental com ênfase em álcool e outras drogas durante a pandemia de COVID-19. Para isso, foram selecionadas duas bases de dados (Biblioteca Cochrane, via Cochrane Database of Systematic Reviews e Medline, via PubMed). **Resultados:** pessoas com transtornos relacionados ao uso das substâncias psicoativas geralmente apresentam condições de saúde pré-existentes que podem indicar maior risco a infecção por COVID-19. Por outro lado, indivíduos que já faziam o uso de substâncias, podem se beneficiar do uso para alívio temporário da ansiedade causada por essa situação, aumentando os riscos de uso nocivo. **Conclusão:** questões biológicas, individuais (cognitivo comportamentais) e sociais afetam sobremaneira indivíduos com transtornos relacionados ao uso de substâncias psicoativas colocando-os em alto risco para o contágio e desenvolvimento da COVID-19. **Descritores:** Usuários de drogas; Transtornos relacionados ao uso de substâncias; Consumo de Bebidas Alcoólicas; Pandemias; COVID-19.

### ABSTRACT

**Objective:** to explore the biopsychosocial implications of COVID-19 for individuals with disorders related to the use of psychoactive substances, as well as the strategies to care for this population during the SARS-CoV-2 outbreak. **Method:** a descriptive study that included different study designs in virtual databases to show the growth in the number of publications in the area of mental health with an emphasis on alcohol and other drugs during the COVID-19 pandemic. For this, two databases were selected (Cochrane Library, via Cochrane Database of Systematic Reviews and Medline, via PubMed). **Results:** people with disorders related to the psychoactive substances use generally have pre-existing health conditions that may indicate a higher risk of COVID-19 infection. On the other hand, individuals who already used substances can benefit from the use for temporary relief of anxiety caused by this situation, increasing the risks of harmful use. **Conclusion:** biological, individual (cognitive behavioral) and social issues greatly affect individuals with disorders related to the use of psychoactive substances, placing them at high risk for the contagion and development of COVID-19. **Descriptors:** Drug users; Substance-related disorders; Alcohol Drinking; Pandemics; COVID-19

### RESUMEN

**Objetivo:** explorar las implicaciones biopsicósociales del COVID-19 para las personas con trastornos relacionados con el uso de sustancias psicoactivas, así como las estrategias de atención a esta población durante el brote de SARS-CoV-2. **Método:** estudio descriptivo que incluyó diferentes diseños de estudios en bases de datos virtuales para mostrar el crecimiento en el número de publicaciones en el área de salud mental con énfasis en el alcohol y otras drogas durante la pandemia COVID-19. Se seleccionaron dos bases de datos (Cochrane Library, a través de Cochrane Database of Systematic Reviews y Medline, a través de PubMed). **Resultados:** Las personas con trastornos del consumo de sustancias psicoactivas generalmente tienen condiciones de salud preexistentes que pueden indicar un mayor riesgo de infección por COVID-19. Por otro lado, individuos que ya utilizaron sustancias pueden beneficiarse del uso para el alivio temporal de la ansiedad causada por esta situación, aumentando los riesgos de uso nocivo. **Conclusión:** biológicos, individuales (cognitivo-conductuales) y problemas sociales afectan en gran medida a individuos con trastornos relacionados con el uso de sustancias psicoactivas, poniéndolos en alto riesgo de contagio y desarrollo covid-19. **Descriptores:** Consumidores de drogas; Trastornos por consumo de sustancias; Consumo de alcohol; Pandemias; COVID-19.

## Introduction

In March 2020, the World Health Organization (WHO) recognized COVID-19 as a pandemic. One of the public health responses to COVID-19, from WHO, was the recommendation of social isolation as one of the most efficient measures to reduce the spread of COVID-19.<sup>1</sup> Currently available, on the other hand, the wider consequences of confinement are accumulating rapidly. Recent notes<sup>2</sup> in countries subjected to this drastic measure have shown worrying increases in anxiety, depression and substance abuse in the general population. In addition, specialists<sup>2,3</sup> have suggested a deterioration in mental health during confinement, which can contribute to the emergence of severe psychiatric pathologies and an increased need to receive medical care during and after confinement.

Among the most common responses to the COVID-19 pandemic are the fear of becoming ill, of death, of losing livelihoods, and feelings of helplessness, boredom, loneliness, depression, anger and distrust. These situations lead to a worsening of mental health conditions and an increase in the use of alcohol, tobacco or other drugs<sup>4</sup>. Studies carried out after an outbreak of severe acute respiratory syndrome (SARS) <sup>5,6</sup> concluded that exposure to the outbreak of a serious infectious disease can, like other exposures to disasters, lead to abuse / dependence on alcohol and other drugs.<sup>6</sup> Thus, COVID -19 has implications for the care of individuals with disorders related to the use of SPAs, considered more vulnerable during periods of pandemic.<sup>1</sup>

Given the above, the objective is to explore the biopsychosocial implications of COVID-19 for individuals with disorders related to the use of psychoactive substances, as well as the strategies of care for this population during the outbreak SARS-CoV-2.

## Method

This is a descriptive study that included different study designs in virtual databases to show the growth in the number of publications in the area of mental health with an emphasis that provide a high level of evidence for decision making and thus seek to justify the impacts of COVID-19 among people with disorders related to the use of psychoactive substances that can directly affect their treatment, as resources for specialized services and primary health care may be scarce, leaving the population at the margin of necessary care.

For this, two databases were selected (Cochrane Library, via Cochrane Database of Systematic Reviews and Medline, via PubMed Portal).

## Results and Discussion

### **Biological and physical factors: increased vulnerability to COVID-19 among users of psychoactive substances**

Individuals who use SPAs generally have pre-existing health conditions that may indicate a higher risk of infection with Sars-CoV-2 and its evolution.<sup>7</sup> Individuals who already used alcohol during periods of isolation may benefit

from the use for the temporary relief of anxiety caused by this situation. However, from a biological point of view, the substance tends to potentiate anxiety due to the initial physical effects of alcohol consumption. In addition, alcohol consumption increases the production of cortisol<sup>8,9</sup> contributing to the dysregulation of the immune response,<sup>10</sup> predisposing to lung problems, of a mental nature, and other communicable and non-communicable pathologies.<sup>11</sup>

The pandemic period is also a risk for individuals who are being treated for alcohol use disorder. Relapses of relapses can be constant, which increases the levels of circulating cortisol,<sup>12</sup> causing impairment of the modulation of the immune system. Immune impairment due to chronic alcohol consumption has been evidenced in several studies, both in animal models and in human beings. A study carried out in mice with chronic use of alcohol showed greater severity and mortality due to the influenza virus.<sup>13</sup> There is also evidence that the immunological conditions and liver diseases in the use of alcohol (moderate or abusive) predispose the increased risk for viral and bacterial infections.<sup>9, 14</sup> In addition, SPA users, when they develop pneumonia, are more likely to need the use of mechanical ventilation.<sup>15</sup>

Like alcohol, tobacco has also been identified as responsible for changes in the immune system, such as a reduction in immunoglobulins and TCD4 + lymphocytes, which weaken the body of passive and active smokers against bacterial pneumonia,<sup>16</sup> in addition to causing changes in lung function and inflammation. local and systematic.<sup>17</sup> Despite these notes on the possible weaknesses of smokers, the published literature on cases of COVID-19 and the use of tobacco is controversial about this vulnerability. Authors point out that being a smoker adversely compromises the evolution of infection and severity of the coronavirus<sup>18</sup> and that it can induce death.<sup>19</sup> On the other hand, studies<sup>20,21</sup> have highlighted the low rate of smokers among patients with more severe symptoms. A possible explanation for these observations would be the fact of the competition of the Sars-CoV-2 virus for the binding site in the nicotinic acetylcholine receptor (nAChR), suggesting that nicotine would have a protective factor against the coronavirus.<sup>22</sup> The use of SPAs may favor the infection by COVID-19;<sup>23</sup> but social detachment and the other consequences of the pandemic favor relapses increasing the risks for excessive alcohol consumption.<sup>24,25</sup>

### **Psychological and individual factors: the use / abuse of SPA in response to negative feelings, and the exacerbation of problematic use during and after the pandemic**

It is still unclear the real psychological impact of the countless factors experienced by those who use SPAs and the general population during and after the pandemic. According to the WHO, the current moment exacerbates several psychological factors that can contribute to relapses to alcohol use, or this use can be a risk factor for depressive episodes.<sup>26</sup> Social / economic factors and negative feelings (fear of becoming infected and infecting loved ones) , grief, imposed social isolation, loneliness, stress, sadness and depression), have affected a large part of the population during quarantine.<sup>14</sup> These negative feelings can exacerbate substance use and abuse.<sup>27</sup> The use of alcohol is associated with isolation social and has been detected as a strategy used by individuals to face negative emotional problems.<sup>7,27,28</sup>

The combination of stress, anxiety and the availability of alcoholic beverages are factors that favor the increase in addictive behavior. Studies carried out at the beginning of the pandemic showed an increase in alcohol consumption, depression and poor management in coping with stress;<sup>27,29</sup> being the greatest impairment in the 21 to 40 age group. A study carried out in China, the first epicenter of the disease, showed the psychological impact of COVID-19. The symptoms of stress, anxiety and depression (moderate and severe) were more prevalent in women and in individuals with low education.<sup>30</sup> Stress is considered a risk factor for the initiation and maintenance of alcohol consumption. The occurrence of neuroadaptation to chronic alcohol use that causes positive feedback, due to its potential to raise cortisol levels that activate the desire to consume alcohol.<sup>24</sup>

#### *Association of the use of SPAs and risk behaviors*

The use of SPA can be associated and or contribute to other risk behaviors for the relief of negative feelings caused by the pandemic, such as gambling<sup>25</sup> and increased impulsivity, with the prioritization of substance use, which can lead to non-compliance of the containment strategies for the dissemination of the coronavirus.<sup>24,31</sup> Other individual factors must be taken into account, such as the use of equipment for the use of some SPAs such as crack, which usually improvised with inappropriate and shared materials<sup>32</sup> can favor contamination by the virus, as well as the act of use performed in a group which stimulates crowding,<sup>33</sup> abstinence itself and the search for the acquisition of SPA can be a factor of exposure to the virus for the individual himself, his family and also for health professionals.<sup>23</sup>

The age group can also be a factor related to the individual, we currently have a large number of users of SPAs in the age group of 50 years or older<sup>34</sup> and many have associated, communicable and non-communicable comorbidities,<sup>35</sup> increasing the vulnerability to contamination.

Scholars<sup>29</sup> from Poland found the presence of suicidal ideation, and a higher probability of consuming alcoholic beverages, especially among those who used the strategy of denying the pandemic event and had a low score in the assessment and mental health.

In general, the use of psychoactive substances has been identified as a predictor of self-harm and suicidal behavior.<sup>26,36</sup> The intensification of negative feelings during the pandemic can lead not only to suicidal behavior,<sup>25,37</sup> but also to suicidal ideation, self-mutilation and self-injury.<sup>38</sup> This behavior assumes greater repercussion among individuals undergoing treatment for the use of SPAs, since a study pointed out that those without a psychiatric history were seven times more likely to commit suicide, increasing to 13 times more when the use of SPAs was associated with psychiatric history, than in the general population.<sup>39</sup>

Fear of becoming a source of contamination for loved ones,<sup>40</sup> the economic crisis and high unemployment rates<sup>36</sup> represent a risk factor for suicide during the pandemic. Alcohol consumption can also be used as a mechanism to alleviate negative emotions,<sup>41</sup> since, under the effect of the substance, the individual has a greater chance of ending the self-extermination plan. Although American studies have pointed to a drop in the rate of suicidal ideation during social

isolation, there has been an increase in the emergency sector of complications from alcohol use.<sup>42</sup>

### *Implications of using smoked or inhaled SPAs for COVID-19*

Studies have pointed out that the use of inhaled or smoked SPAs causes pulmonary and cardiovascular morbidities,<sup>7</sup> increasing the inflammatory levels in these individuals, increasing the risk of COVID-19.<sup>25</sup> infection. Pre-existing respiratory problems due to the use of tobacco and marijuana, for example, may increase the risk of exposure to COVID-19,<sup>31</sup> as well as other pathologies associated with these substances.<sup>7</sup> However, studies<sup>43,44</sup> have suggested that marijuana benefits proven for other purposes through the use of cannabinoids can be applied to control inflammatory effect of COVID-19, and that this substance has the potential to limit the progression of the disease.

Tobacco is responsible for several changes in the respiratory system, increasing the risks for pulmonary inflammations, worsening in cases of influenza<sup>16</sup> and a higher number of hospitalizations and ICU use when compared to non-smokers.<sup>45</sup> In the MERS-CoV outbreak in 2014, being a smoker, having diabetes mellitus, chronic kidney disease and being elderly were among the factors associated with mortality.<sup>46</sup>

During the pandemic, tobacco was highlighted by the association of its consumption and the risks to people's health. South Africa and India have banned the sale of cigarettes, disregarding the smoker's difficulty in quitting addiction.<sup>47</sup>

Although there is little evidence in the literature on tobacco and COVID-19, the toxins present in cigarettes (nicotine, carbon monoxide and polycyclic aromatic hydrocarbons) cause an increase in blood pressure, cardiovascular, pulmonary and immunological impairments<sup>(48)</sup>, increasing vulnerability among smokers for COVID-19 infection. The smoker has five times more risk of contracting "Influenza". Studies in China have shown that smokers are 1.4 times more likely to have severe symptoms of COVID-19 and up to 2.4 times more likely to need respirators and die.<sup>19</sup> In the UK, the risk was 1.25 times greater death by COVID-19.<sup>47</sup> Evidencing an unfavorable prognosis when compared to those who never smoked.<sup>18</sup> The most recent review to date, which included eight systematic reviews and meta-analysis on the relationship between tobacco and COVID-19, confirmed that smokers have a lot more chances of developing aggravations resulting from COVID-19 and that the recommendation is to stop smoking as soon as possible, corroborating the WHO suggestion.<sup>49</sup>

Due to the conditions of consumption of hookahs, which have shared mouthpieces, the risk of contamination by COVID-19 increases, in addition to herpes, influenza, among others.<sup>50</sup> Regarding electronic cigarettes, which has been an alternative among tobacco users, studies have pointed out that the burning of solvents / aromas causes pulmonary and immunological impairments.<sup>51,52</sup> At the moment, there is no evidence on the increased risk of SARS-CoV-2 contamination by the use of this substance.<sup>47</sup>

In general, relevant studies on the consumption of illicit drugs and their implications for COVID -19 are scarce. A French study showed an increase in marijuana use of 31.2% during the pandemic.<sup>53</sup> In the same country, a significant increase in the number of overdoses per Methadone was also reported from the



second week of lockdown.<sup>54</sup> Due to possible sharing of pipes, the crack user has the risk of viral transmission, such as HIV, Hepatitis C and Tuberculosis, 32 which may also apply to the new coronavirus. Not only in viral transmission, but also in respiratory problems. The COVID-19 pandemic requires legislative changes to reduce harm, since users of inhaled drugs, such as crack and cocaine, are included in the risk group because they are more susceptible to lung diseases.<sup>32</sup> This applies to marijuana (*cannabis*) due to the fact that it is a smoked illicit drug and because it carries with it the same burden of risks already mentioned.

In view of what was exposed about the use of SPAs and the risk factors that may represent a situation of vulnerability during and after the pandemic. Chart 1 presents the recommendations and possible management for individuals who use SPAs..

**Table 1-** Recommendations for biological, physical, psychological and individual management of individuals with disorders related to the use of SPA during the COVID-19 pandemic

***Biological and physical factors***

- Monitor individuals undergoing treatment with pre-existing health conditions;
- Monitor the use of medications for continuous use, in order to minimize the risk of complications due to pre-existing conditions;
- Observe and investigate changes in the pattern of consumption, lapses and relapses;
- Attention to clinical pictures of intoxication due to the use of SPAs or abstinence, which can be a confounding factor for the diagnosis of COVID-19.

***Psychological and individual factors***

- Encourage maintenance and contact, even if virtual, with the existing support network (family, friends and mutual support groups).
- Provide access lines to accommodate grief, stress, sadness, depression, anxiety;
- Investigation of self-harm, self-mutilation and suicidal ideation;
- Intensification of harm reduction policies among users of illicit substances.
- Guidelines on the risks of consuming inhaled and smoked drugs for contamination;
- Guidelines for the risks of sharing cigarettes and utensils for the use of smoked and inhaled drugs;
- Contribute to the recognition of craving / cracking as a risk factor for contamination.

**Social factors and social vulnerability: predisposition for COVID-19 among individuals with disorders related to the use of SPA.**

Approximately 32% of people who currently use alcohol and 20% of smokers increased their consumption during the pandemic. Relapses to alcohol and tobacco abuse were relatively common in 19% and 25%, respectively.<sup>55</sup> Chinese study showed that the risky use of alcohol increased to 29.1%, the harmful use to 9.5% and alcohol dependence reached 1.6% .<sup>56</sup>

Among the psychoactive substances consumed during the pandemic, alcohol has been the most identified among the population. More than 30% changed their drinking habits, about 16% reported drinking less, while 14% declared an increase in the consumption pattern.<sup>29</sup>

The North American demand for alcohol was demonstrated since the beginning of the pandemic when the commercialization of this substance increased 55%. Sales of distilled beverages such as tequila, gin and cocktails increased by 75%, due to storage before the early closure of liquor stores in some

states.<sup>57</sup> Another problem resulting from the decrease in the availability of alcohol in commerce due to the closing of bars and liquor stores. The sale of the product can be attributed to 70% alcohol intake among individuals with a disorder related to alcohol use, demanding greater attention from their family members on this issue.

This increase in the demand for alcoholic beverages associated with the social isolation imposed by COVID-19 has led to numerous consequences of a social nature, increasing the rates of violent behavior and aggressiveness among families. Children, women and the elderly being the most likely to experience or witness conditions of domestic violence.<sup>58</sup>

These potential situations of violence that occurred during social isolation were used as the main justification for the increase in excessive alcohol consumption that maximizes the risks, frequency and severity of perpetration of intimate partner violence, physical and psychological violence and sexual violence against children and adolescents;<sup>59</sup> and health professionals should be aware of these signs of domestic violence.<sup>60</sup>

Worldwide, rates of domestic violence have increased considerably. In China, reports of these aggressions tripled during social distance. France indicated a 30% increase in reports of domestic violence, in Brazil it is estimated that these violent behaviors increased by 40 to 50% and Italy and the United States also observed an increase in this type of violence.<sup>57</sup> The main factors associated with the increased violent attitudes have been attributed, among others, to the abusive use of alcohol and other substances, suspension of work activities and loss or decrease of family income.<sup>60</sup> Although children are more susceptible to situations of violence, reports of domestic violence against this population have reduced during social distance, possibly due to the closure of schools, daycare centers and other community social protection organizations that favor detection, mainly by educators.<sup>57</sup>

#### *Potentialization of social vulnerability of individuals with disorders related to the use of SPA and COVID-19*

Globally, people on the street are more prone to precariousness and the abusive use of alcohol and other substances.<sup>19</sup> There is evidence in the literature that previous epidemics have considerably impacted these individuals, increasing the pattern of SPA use and that this estimate is maintains in the current context of COVID-19.<sup>23</sup>

Even with evidence of increased use in the population, a study points out<sup>61</sup> that the issues of vulnerability compromise even the most accurate estimates, given that due to the marginalization and social exclusion of crack users, for example, it is possible that a large portion of them have not even been heard, making evident the fragility and social vulnerability of these individuals in relation to health care and adequate guidance in the context of the pandemic.

In addition to these implications, individuals with disorders related to the use of SPA on the street are confronted by a continuous stay in unhealthy conditions, which contribute to a greater risk of infection by COVID-19 and, consequently, increased transmissibility.<sup>62</sup> This can be attributed to the lack of personal hygiene materials and hand hygiene facilities.<sup>23</sup>

### *Influence of social media on alcohol consumption during social isolation*

During the pandemic, countless social networks like Facebook, Twitter and Instagram, became important vehicles of communication for the acquisition of alcohol. Given this, social media have influenced people to the behavior of drinking during the period of social detachment.<sup>63,64</sup> In addition to these applications, worldwide, several restaurants and businesses that offer alcoholic beverages or delivery services (delivery) are considered essential and have led to the excessive use of these substances.<sup>63</sup> It is also observed the use of social media by digital influencers disseminating cocktail and drinks recipes for consumption with friends through virtual happy hour.<sup>65</sup> Such propagations have contributed to the increase in the standard consumption of alcoholic beverages at home,<sup>63</sup> increasing the risks of COVID-19 infection, due to its impact on the impairment of the immune system.<sup>9</sup>

### *(Mis) information in the context of a pandemic related to alcohol use*

Advertising about hand sanitizer containing alcohol to prevent the spread of the virus, apparently led to the mistaken belief that alcohol consumption can protect against COVID-19.<sup>66</sup> This campaign contributed to the dissemination of a series of misinformation associated with the effects of alcohol on COVID-19. Among them, that alcohol would strengthen the immune system, protecting the person from viral infection. In addition, the erroneous content has spread that the consumption of alcoholic beverages with a concentration greater than 60% would have the same effect on the body that 70% alcohol has for hand hygiene and that drinking in large quantities would destroy the virus inhaled from the air.<sup>59</sup>

These misunderstandings aroused concern among health authorities and agencies. These situations highlight the need to implement strategies to improve information related to the use of alcohol and COVID-19, through the media and social media<sup>(59)</sup>, so that the news are disseminated according to reality, avoiding the misinformation that causes damage to the health of the populations.<sup>56</sup> In this same direction, results that marijuana could bring benefits in the treatment of COVID-19,<sup>43,44</sup> were transmitted and reached the general population very easily, constituting a risk for the incentive to use and increase the use of this substance due to the belief in the benefit of smoking marijuana.

### **COVID-19 implications for health care and care for people with disorders related to the use of SPA**

The impacts of COVID-19 among people with disorders related to the use of SPAs can directly affect their treatment, as resources for specialized services and primary health care can be scarce, leaving the population at the margin of necessary care.<sup>67</sup>

Various complications due to the use and abuse of SPAs and psychological problems can also have important repercussions on specialized mental health services. According to the Pan American Health Organization (PAHO),<sup>68</sup> in the post-pandemic period, we must prepare for a likely increase in the demand for assistance to individuals with abuse of alcohol and other SPAs, and of a mental nature. In this context, nursing will have an important role, mainly for carrying

out actions that can help the identification of these individuals during the search for care and reintegration into the psychosocial care network.

If, in the pre-pandemic period of COVID-19, only one in five people with harmful alcohol consumption received adequate treatment,<sup>69</sup> this relationship currently tends to increase, requiring the services that make up the apparatuses of the psychosocial care network to reorganize themselves to ensure access and follow-up for people with disorders related to the use of SPAs, either due to the need to continue treatment related to addictions or because of COVID-19.<sup>70</sup> infection.

Many countries have limited access or reorganized health services during the pandemic, especially for the most vulnerable populations, with the risk of interrupting harm reduction actions, reversing the gains obtained in the promotion, prevention and treatment of the human immunodeficiency virus (HIV) and Sexually Transmitted Infections (STIs), as they are not considered essential services,<sup>31</sup> which may also have occurred with the treatment of disorders related to the use of SPAs.

Some challenges are posed to support principles that ensure access to treatment with equity and quality during the pandemic, since this population is subjected to carrying in their histories the marginalization, prejudice and stigmas that in health services are accentuated by mistaken perceptions professionals,<sup>31</sup> and may further compromise the attention to this population during this period.

The expansion of access to health and intersectoral policies for people with disorders related to the use of SPAs needs to be seen for issues that go beyond substance use, mainly because they are more vulnerable and with greater risks of morbidity and mortality due to COVID-19.<sup>7,71,72</sup>

In order to not only guarantee access to services, but also biopsychosocial care strategies in a unique way, several actions have been proposed. In line with the current PAHO recommendations related to isolation or social distance, the fundamental role of health services in the dissemination of preventive measures for this population is highlighted, such as increased basic care, personal hygiene, hand washing and use of equipment personal protection.<sup>73</sup>

However, the recommendations for distance and social isolation have produced paradoxes that reverberate in the care of people with disorders related to the use of SPAs, as there is an increase in consumption, association with other more available substances,<sup>25</sup> greater risk of intoxication and overdose<sup>7,74</sup> as well as abstinence syndrome,<sup>75-77</sup> leading to a greater demand for specialized services in alcohol and other drugs.<sup>78</sup> In addition, these factors enhance the risks already faced by this population, such as: the presence of comorbidities, immunity compromised and difficulties in complying with the measures established to prevent the transmission of COVID-19.<sup>79</sup>

#### *Attention / care strategies*

Despite the existing challenges, the pandemic gives rise to innovative ways to ensure the continuity of follow-up for people with disorders related to the use of SPAs. Among the strategies, the use of teleservice has been an assistance resource for assessing the beginning of treatment and for specific drug monitoring for additions,<sup>80,81</sup> for monitoring users who remain abstinent and are at risk of relapses due to social isolation the absence of possibilities to participate

in support group meetings.<sup>7</sup> As well as in the identification and monitoring of subjective aspects such as anxiety,<sup>82,83</sup> ideation and attempted suicide,<sup>84</sup> cases of psychic comorbidities such as: depression<sup>83,85-87</sup> affective disorder bipolar<sup>88,89</sup> and post-traumatic stress disorder.<sup>82,83</sup>

Another strategy to keep the socio-affective network active, establishing contact, even if virtual, with family, friends and colleagues is the use of social networks that can promote the sharing of care and solidarity actions, in order to favor the feeling of support and social comfort.<sup>90</sup>

Virtual connections seem to be safe strategies to initiate and maintain treatment, however these platforms require some resources that will depend on the computer, telephone and internet access, which highlights the drastic gap that exists between drug users who are in a situation of social vulnerability<sup>91</sup> besides to require trained professionals to use these tools.

The relaxation of rules and protocols in specialized services also deserves to be reviewed in the pandemic period. In the United States, in order to reduce the chances of deaths from opioid overdose, government agencies, the Drug Enforcement Administration and the Substance Abuse and Mental Health Services Administration, issued reorganization guidelines for accessing and continuing drug treatment through telehealth.<sup>80,81</sup>

#### *Monitoring and follow-up of the use of SPAs by Primary Care services during the pandemic*

Primary health care plays an important role in organizing and coordinating care to cope with COVID-19, as it develops health promotion and prevention actions for the population and community, reducing referral to hospitals and urgent and emergency devices.<sup>92</sup> These services should also increase attention to psychic and social aspects arising from social isolation and precariousness of life, such as alcoholism, chronic conditions resulting from use<sup>93</sup> panic syndrome, anxiety disorder, depression, mental disorders and risk of violence domestic.<sup>59</sup>

Betting on biopsychosocial care strategies with the involvement of the entire network is necessary not only for access to clinical treatment for those who already suffer from disorders related to the use of SPAs, in specialized services such as the Psychosocial Care Centers for Alcohol and Drugs (CAPS- AD), but also to prevent diseases related to the use of the general population through screening,<sup>94</sup> using instruments validated for this purpose, such as: Alcohol Use Disorders Identification Test (AUDIT), Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and Cut Annoyed by Criticism, Guilty and Eye-opener (CAGE) developed to identify the pattern of consumption of alcohol and other drugs in the general population,<sup>95</sup> since alcohol consumption tends to increase during these periods.<sup>55,56</sup> this, the recognition and the use of technological care tools to manage situations identified in the service, such as the brief intervention and motivational interview. onal can contribute to the care of the population in preventing the aggravation of problems related to the use of SPAs during the pandemic.

In situations of greater severity related to the use of substances that may occur in the period of social detachment, such as intoxication or severe withdrawal syndrome, access to appropriate places and specialized care should be guaranteed,<sup>(96)</sup> paying attention to the fact that the resulting symptoms the

consumption of alcohol or abrupt withdrawal can be confused with symptoms of COVID-19 or even be associated with it.<sup>72</sup> Therefore, the importance of making a differential diagnosis that will assist in the proper management of the case. In this sense, specialized services that do not operate continuously should provide their users with information and guidance on where to seek emergency help, if they need it.

### *Grupos de autoajuda*

Daily, thousands of people globally find recovery for SPAS addiction in anonymous groups. In Brazil there are more than 15 different groups of anonymous, including Narcotics Anonymous (NA), Gamblers Anonymous (JOG-ANON), Smokers Anonymous (FA), among others.<sup>97</sup> Although therapeutic communities have been listed as essential services,<sup>98</sup> self-help groups did not have the same recognition, causing numerous difficulties to the thousands of individuals with problems related to the use of SPAS who use groups of anonymous people without access to “treatment”. Because they are organizations without a government connection, they mostly depend on spaces such as churches and schools to maintain their activities, so they were forced to close their doors during the quarantine.<sup>99</sup>

This becomes more worrying when considering the fact that a large portion of individuals who attend self-help group meetings are often not in government statistics, as they are not connected to health services. The interruption of reception in self-help groups can put these individuals at risk mainly for lapses and relapses in the use of SPAS, since the uncertainties and fears imposed by the pandemic can trigger the craving / craving for use. Once they were prevented from meeting, the digital means that were already used in a discreet way, started to be used more and became the only alternative for maintaining the Groups. Alcoholics Anonymous (AA), for example, has made daily online meetings available on its website, enabling attendees to migrate to digital platforms.<sup>100</sup> In addition, several groups have conducted their own online meeting methods either on their own website or through applications such as Zoom, Zello, Google Meet, Whatsapp, among others.<sup>101</sup> Despite the impacts of COVID-19 on the functioning of self-help groups, there is still no published evidence on the consequences of the absence of face-to-face meetings. Studies capable of monitoring these consequences should be encouraged.

In Table 2, we address and present the recommendations on the key points identified about social factors and the implications for health care and care for these individuals in the context of the pandemic.

**Table 2-** Recommendations for the management of social factors and health care and attention of individuals with disorders related to the use of SPAs during the COVID-19 epidemic.

#### *Social factors and social vulnerability*

- Promote social actions to welcome the homeless population;
- Monitor the pattern of substance use during the pandemic;
- Promote educational actions through social media to reduce SPA consumption;
- Provide community initiatives that ensure that citizens are aware of the increased risk of domestic violence during the pandemic;
- Encourage neighbors, friends and family to observe signs of violence by children, women and the elderly and encourage them to report the aggressors to local authorities.
- Clarify and advise on untrue news and rumors about the use of SPAs and COVID-19;

***Attention and care in health services***

- Tracking the use of SPA in the population in all health services;
- Ensuring access to health services and intersectoral devices;
- Offer continuous monitoring, of territorial and community basis, to people with disorders related to the use of SPAs;
- Provide information on COVID-19 and means of mitigation;
- Encourage precautionary measures to mitigate contagion (wearing masks, adequate social distance and hand washing);
- Stimulate actions aimed at autonomy and self-care;
- To guide the search for urgent and emergency services in cases of severe intoxication or severe withdrawal syndrome caused by SPAs;
- To guide and inform about services available to deal with emergency situations during the pandemic.
- Use phones, whatsapp and other forms of video contact to support people with disorders related to the use of SPAs in specialized services;
- Disclosure of websites and telephones of self-help groups (Alcoholics Anonymous, Narcotics Anonymous, Smokers Anonymous).

## Conclusion

Biological, individual (cognitive behavioral) and social issues greatly affect individuals with disorders related to the use of psychoactive substances, placing them at high risk for the contagion and development of COVID-19. While those who already suffer from some disorder may face difficulties in care during the pandemic, there may be an increase in consumption among the general population, increasing the harmful consumption of these substances, which represents a great risk for families and communities, not only due to social problems such as domestic violence during periods of social detachment, but also due to the increase of these disorders in the post pandemic, causing an overload in health services with economic repercussions. Guarantee access to specialized services seeking other alternatives of remote care during this period and implement preventive actions in primary health care services such as screening and early identification of harmful substance use during the pandemic, considering other alternatives for socialization such as groups of self-help seems to be important strategies for coping with issues associated with disorders related to the use of psychoactive substances during the COVID-19 pandemic.

## Acknowledgment

This research did not receive funding for its performance.

## References

1. World Health Organization. Mental health and psychosocial considerations during the COVID-19 outbreak, 18 March 2020. [Internet]. Geneva: WHO; . 2020 [cited 2020 Jul 26]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/331490/WHO-2019-nCoV-MentalHealth-2020.1-eng.pdf?sequence=1&isAllowed=y>

2. Mahase E. Covid-19: Mental health consequences of pandemic need urgent research, paper advises. *BMJ* (Clinical research ed) [Internet]. 2020 Apr 16 [cited 2020 Jul 26];369:m1515. Available from: <http://group.bmj.com/group/rights-licensing/>
3. Holmes EA, O'Connor RC, Perry VH, Tracey I, Wessely S, Arseneault L, et al. Multidisciplinary research priorities for the COVID-19 pandemic: a call for action for mental health science [Internet]. Vol. 7, *The Lancet Psychiatry*. Elsevier Ltd; 2020 [cited 2020 Jul 26]. p. 547. Available from: <https://pmc/articles/PMC7159850/?report=abstract>
4. World Health Organization. Information note COVID-19 and NCDs [Internet]. 2020 [cited 2020 Jul 26]. Available from: <https://www.who.int/publications/m/item/covid-19-and-ncds>
5. Lau JTF, Yang X, Pang E, Tsui HY, Wong E, Yun KW. SARS-related perceptions in Hong Kong. *Emerging Infectious Diseases* [Internet]. 2005 Mar [cited 2020 Jul 26];11(3):417–24. Available from: <https://pmc/articles/PMC3298267/?report=abstract>
6. Wu P, Liu X, Fang Y, Fan B, Fuller CJ, Guan Z, et al. EPIDEMIOLOGY Alcohol Abuse/Dependence Symptoms Among Hospital Employees Exposed to a SARS Outbreak. *Alcohol & Alcoholism*. 2008;43(6):706–12.
7. Volkow ND. Collision of the COVID-19 and Addiction Epidemics. *Annals of Internal Medicine* [Internet]. 2020 Apr 2 [cited 2020 Jun 6];M20-1212. Available from: <https://www.acpjournals.org/doi/10.7326/M20-1212>
8. Blaine SK, Milivojevic V, Fox H, Sinha R. Alcohol effects on stress pathways: Impact on craving and relapse risk. Vol. 61, *Canadian Journal of Psychiatry*. SAGE Publications Inc.; 2016. p. 145–53.
9. Molina PE, Happel KI, Zhang P, Kolls JK, Nelson S. Focus on: Alcohol and the immune system. *Alcohol Research and Health* [Internet]. 2010 [cited 2020 Jul 26];33(1–2):97–108. Available from: <https://pmc/articles/PMC3887500/?report=abstract>
10. Orio L, Antón M, Rodríguez-Rojo IC, Correas Á, García-Bueno B, Corral M, et al. Young alcohol binge drinkers have elevated blood endotoxin, peripheral inflammation and low cortisol levels: neuropsychological correlations in women. *Addiction Biology*. 2018 Sep 1;23(5):1130–44.
11. World Health Organization. Alcohol does not protect against COVID-19; access should be restricted during lockdown [Internet]. Geneva: WHO; 2020 [cited 2020 Jun 5]. Available from: <https://www.euro.who.int/en/health-topics/disease-prevention/alcohol-use/news/news/2020/04/alcohol-does-not-protect-against-covid-19-access-should-be-restricted-during-lockdown>
12. Sinha R. Effects of Adrenal Sensitivity, Stress- and Cue-Induced Craving, and Anxiety on Subsequent Alcohol Relapse and Treatment Outcomes. *Archives of General Psychiatry* [Internet]. 2011 Sep 1 [cited 2020 Jun 5];68(9):942. Available from: <http://archpsyc.jamanetwork.com/article.aspx?doi=10.1001/archgenpsychiatry.2011.49>
13. Meyerholz DK, Edsen-Moore M, McGill J, Coleman RA, Cook RT, Legge KL. Chronic Alcohol Consumption Increases the Severity of Murine Influenza Virus Infections. *The Journal of Immunology* [Internet]. 2008 Jul 1 [cited 2020 Jun 6];181(1):641–8. Available from: <http://www.jimmunol.org/lookup/doi/10.4049/jimmunol.181.1.641>
14. Testino G. Are Patients With Alcohol Use Disorders at Increased Risk for Covid-19 Infection? *Alcohol and Alcoholism* [Internet]. 2020 May 13 [cited 2020 Jun 8];2020:1–3. Available from: <https://academic.oup.com/alcalc/advance-article/doi/10.1093/alcalc/agaa037/5827422>
15. Gupta NM, Lindenauer PK, Yu P-C, Imrey PB, Haessler S, Deshpande A, et al. Association Between Alcohol Use Disorders and Outcomes of Patients Hospitalized With Community-Acquired Pneumonia. *JAMA Network Open* [Internet]. 2019 Jun 7 [cited 2020 Jun 7];2(6):e195172. Available from: <http://jamanetworkopen.jamanetwork.com/article.aspx?doi=10.1001/jamanetworkopen.2019.5172>



16. Arcavi L, Benowitz NL. Cigarette Smoking and Infection. *Archives of Internal Medicine* [Internet]. 2004 Nov 8 [cited 2020 Jun 6];164(20):2206. Available from: <http://archinte.jamanetwork.com/article.aspx?doi=10.1001/archinte.164.20.2206>
17. Zhou Z, Chen P, Peng H. Are healthy smokers really healthy? *Tobacco Induced Diseases* [Internet]. 2016 Dec 15 [cited 2020 Jun 6];14(1):35. Available from: <http://www.tobaccoinduceddiseases.org/Are-healthy-smokers-really-healthy-67257/0,2.html>
18. Liu W, Tao ZW, Wang L, Yuan ML, Liu K, Zhou L, et al. Analysis of factors associated with disease outcomes in hospitalized patients with 2019 novel coronavirus disease. *Chinese medical journal* [Internet]. 2020 May 5 [cited 2020 Jun 28];133(9):1032–8. Available from: <http://pmc/articles/PMC7147279/?report=abstract>
19. Vardavas C, Nikitara K. COVID-19 and smoking: A systematic review of the evidence. *Tobacco Induced Diseases* [Internet]. 2020 Mar 20 [cited 2020 Jun 6];18(March). Available from: <http://www.journalssystem.com/tid/COVID-19-and-smoking-A-systematic-review-of-the-evidence,119324,0,2.html>
20. Miyara M, Tubach F, POURCHER V, Morelot-Panzini C, Pernet J, Haroche J, et al. Low incidence of daily active tobacco smoking in patients with symptomatic COVID-19. *Qeios*. 2020 Apr 21.
21. Fontanet A, Tondeur L, Madec Y, Grant R, Besombes C, Jolly N, et al. Cluster of COVID-19 in northern France: A retrospective closed cohort study. *medRxiv* [Internet]. 2020 Apr 23 [cited 2020 Jun 21];2020.04.18.20071134. Available from: <https://www.medrxiv.org/content/10.1101/2020.04.18.20071134v1>
22. Changeux jean-pierre, Amoura Z, Rey F, Miyara M. A nicotinic hypothesis for Covid-19 with preventive and therapeutic implications. *Qeios*. 2020 Apr 21;
23. Ornell F, Moura HF, Scherer JN, Pechansky F, Kessler FHP, von Diemen L. The COVID-19 pandemic and its impact on substance use: Implications for prevention and treatment. *Psychiatry Research* [Internet]. 2020 Jul [cited 2020 Jun 8];289:113096. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0165178120309033>
24. Clay JM, Parker MO. Alcohol use and misuse during the COVID-19 pandemic: a potential public health crisis? *The Lancet Public Health* [Internet]. 2020 May 1 [cited 2020 Jun 6];5(5):e259. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S2468266720300888>
25. Marsden J, Darke S, Hall W, Hickman M, Holmes J, Humphreys K, et al. Mitigating and learning from the impact of COVID-19 infection on addictive disorders. *Addiction* [Internet]. 2020 Jun 28 [cited 2020 Jun 6];115(6):1007–10. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/add.15080>
26. World Health Organization. Harmful use of alcohol, alcohol dependence and mental health conditions: a review of the evidence for their association and integrated treatment approaches [Internet]. Copenhagen; 2019 [cited 2020 Jul 26]. Available from: <http://www.euro.who.int/pubrequest>
27. Ahmed MZ, Ahmed O, Aibao Z, Hanbin S, Siyu L, Ahmad A. Epidemic of COVID-19 in China and associated Psychological Problems. *Asian Journal of Psychiatry*. 2020 Jun 1;51:102092.
28. Yawger G. Social Isolation Predicting Problematic Alcohol Use in Emerging Adults: Examining the Unique Role of Existential Isolation. *Graduate College Dissertations and Theses* [Internet]. 2018 [cited 2020 Jun 29]; Available from: <https://scholarworks.uvm.edu/graddis>
29. Chodkiewicz J, Talarowska M, Miniszewska J, Nawrocka N, Bilinski P. Alcohol Consumption Reported during the COVID-19 Pandemic: The Initial Stage. *International journal of environmental research and public health* [Internet]. 2020 Jun 29 [cited 2020 Jul 13];17(13):4677. Available from: <https://www.mdpi.com/1660-4601/17/13/4677>
30. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic

- among the General Population in China. *International Journal of Environmental Research and Public Health* [Internet]. 2020 Mar 6 [cited 2020 Jun 5];17(5):1729. Available from: <https://www.mdpi.com/1660-4601/17/5/1729>
31. Dunlop A, Lokuge B, Masters D, Sequeira M, Saul P, Dunlop G, et al. Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic. *Harm Reduction Journal* [Internet]. 2020 Dec 6 [cited 2020 Jun 8];17(1):26. Available from: <https://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-020-00370-7>
32. Harris M. An urgent impetus for action: safe inhalation interventions to reduce COVID-19 transmission and fatality risk among people who smoke crack cocaine in the United Kingdom. *International Journal of Drug Policy* [Internet]. 2020 [cited 2020 Jul 26]; Available from: <https://dx.doi.org/10.1016%2Fj.drugpo.2020.102829>
33. Alves, DY. *Etnográfica Revista do Centro em Rede de Investigação em Antropologia*. <http://journals.openedition.org/etnografica> [Internet]. 2016 Oct 1 [cited 2020 Jul 23];20(3):495–515. Available from: <http://journals.openedition.org/etnografica/4640>
34. Kuerbis A, Sacco P, Blazer DG, Moore AA. Substance Abuse Among Older Adults. Vol. 30, *Clinics in Geriatric Medicine*. W.B. Saunders; 2014. p. 629–54.
35. Lagisetty PA, Maust D, Heisler M, Bohnert A. Physical and Mental Health Comorbidities Associated With Primary Care Visits For Substance Use Disorders. *Journal of Addiction Medicine* [Internet]. 2017 [cited 2020 Jun 8];11(2):161–2. Available from: <http://journals.lww.com/01271255-201704000-00015>
36. Breet E, Goldstone D, Bantjes J. Substance use and suicidal ideation and behaviour in low- and middle-income countries: a systematic review. *BMC Public Health* [Internet]. 2018 Dec 24 [cited 2020 Jul 14];18(1):549. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-018-5425-6>
37. Sher L. An infectious disease pandemic and increased suicide risk [Internet]. Vol. 42, *Revista brasileira de psiquiatria* (Sao Paulo, Brazil: 1999). NLM (Medline); 2020 [cited 2020 Aug 4]. p. 239–40. Available from: <http://www.bjp.org.br/details/989/en-US/an-infectious-disease-pandemic-and-increased-suicide-risk>
38. Iob E, Steptoe A, Fancourt D. Abuse, self-harm and suicidal ideation in the UK during the COVID-19 pandemic. *The British Journal of Psychiatry* [Internet]. 2020 Jul 13 [cited 2020 Jul 15];1–4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/32654678>
39. Hesse M, Thylstrup B, Seid AK, Skogen JC. Suicide among people treated for drug use disorders: A Danish national record-linkage study. *BMC Public Health* [Internet]. 2020 Jan 31 [cited 2020 Jul 15];20(1):146. Available from: <https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-8261-4>
40. Goyal K, Chauhan P, Chhikara K, Gupta P, Singh MP. Fear of COVID 2019: First suicidal case in India! *Asian Journal of Psychiatry* [Internet]. 2020 Mar 1 [cited 2020 Jun 4];49:101989. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S1876201820300976>
41. Gauthier JM, Cole AB, Bagge CL. A preliminary examination of the association between drinking as a typical coping strategy and level of acute alcohol consumption prior to a suicide attempt. *Psychiatry Research*. 2019 Dec 1;282:112626.
42. Smalley CM, Malone Jr DA, Meldon SW, Borden BL, Simon DO EL, Muir MHSA MR, et al. The impact of COVID-19 on suicidal ideation and alcohol presentations to emergency departments in a large healthcare system. *American Journal of Emergency Medicine* [Internet]. 2020 [cited 2020 Jul 16]; Available from: <https://dx.doi.org/10.1016%2Fj.ajem.2020.05.093>
43. Byraredddy SN, Mohan M. SARS-CoV2 induced respiratory distress: Can cannabinoids be added to anti-viral therapies to reduce lung inflammation? Vol. 87, *Brain, Behavior, and Immunity*. Academic Press Inc.; 2020. p. 120–1.

44. Hill KP. Cannabinoids and the Coronavirus. *Cannabis and Cannabinoid Research* [Internet]. 2020 Jun 1 [cited 2020 Jul 26];5(2):118–20. Available from: <https://www.liebertpub.com/doi/10.1089/can.2020.0035>
45. Han L, Ran J, Mak Y-W, Suen LK-P, Lee PH, Peiris JSM, et al. Smoking and Influenza-associated Morbidity and Mortality. *Epidemiology* [Internet]. 2019 May 1 [cited 2020 Jun 21];30(3):405–17. Available from: <http://journals.lww.com/00001648-201905000-00015>
46. Sherbini N, Iskandrani A, Kharaba A, Khalid G, Abduljawad M, AL-Jahdali H. Middle East respiratory syndrome coronavirus in Al-Madinah City, Saudi Arabia: Demographic, clinical and survival data. *Journal of Epidemiology and Global Health* [Internet]. 2016 Mar 1 [cited 2020 Jun 6];7(1):29. Available from: <https://www.atlantis-press.com/article/125905799>
47. Van Zyl-Smit RN, Richards G, Leone FT. Tobacco smoking and COVID-19 infection. *The Lancet Respiratory Medicine* [Internet]. 2020 May [cited 2020 Jul 26];8(7):664. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7247798/>
48. Olds JL, Kabbani N. Is nicotine exposure linked to cardiopulmonary vulnerability to COVID-19 in the general population? *The FEBS Journal* [Internet]. 2020 Mar 28 [cited 2020 Jun 9]; Available from: <http://doi.wiley.com/10.1111/febs.15303>
49. Grundy EJ, Suddek T, Filippidis FT, Majeed A, Coronini-Cronberg S. Smoking, SARS-CoV-2 and COVID-19: A review of reviews considering implications for public health policy and practice. *Tobacco Induced Diseases* [Internet]. 2020 Jul 3 [cited 2020 Jul 26];18(July). Available from: <https://doi.org/10.18332/tid/124788>
50. Silva ALO da, Moreira JC e M, Stella Regina. COVID-19 and smoking: A high-risk association. *Cadernos de Saude Publica* [Internet]. 2020 [cited 2020 Jul 26];36(5):72020. Available from: [https://www.scielo.br/pdf/csp/v36n5/en\\_1678-4464-csp-36-05-e00072020.pdf](https://www.scielo.br/pdf/csp/v36n5/en_1678-4464-csp-36-05-e00072020.pdf)
51. Clapp PW, Pawlak EA, Lackey JT, Keating JE, Reeber SL, Glish GL, et al. Flavored e-cigarette liquids and cinnamaldehyde impair respiratory innate immune cell function. *American Journal of Physiology - Lung Cellular and Molecular Physiology* [Internet]. 2017 [cited 2020 Jul 20];313(2):L278–92. Available from: <https://doi.org/10.1152/ajplung.00452.2016>
52. Sussan TE, Gajghate S, Thimmulappa RK, Ma J, Kim J-H, Sudini K, et al. Exposure to Electronic Cigarettes Impairs Pulmonary Anti-Bacterial and Anti-Viral Defenses in a Mouse Model. Metzger DW, editor. *PLOS ONE* [Internet]. 2015 Feb 4 [cited 2020 Jul 20];10(2):e0116861. Available from: <https://dx.plos.org/10.1371/journal.pone.0116861>
53. Rolland B, Haesebaert F, Zante E, Benyamina A, Haesebaert J, Franck N. Global changes and factors of increase in caloric/salty food, screen, and substance use, during the early COVID-19 containment phase in France: a general population online survey. (Preprint). *JMIR Public Health and Surveillance*. 2020 Apr 26;
54. Lapeyre-Mestre M, Boucher A, Daveluy A, Gibaja V, Jouanjus E, Mallaret M, et al. Addictovigilance contribution during COVID-19 epidemic and lockdown in France. *Therapies*. 2020 Jun 23;
55. Sun Y, Li Y, Bao Y, Meng S, Sun Y, Schumann G, et al. Brief Report: Increased Addictive Internet and Substance Use Behavior During the COVID-19 Pandemic in China. *The American Journal on Addictions* [Internet]. 2020 Jul 4 [cited 2020 Jul 26];29(4):268–70. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/ajad.13066>
56. Ahmed W, Vidal-Alaball J, Downing J, Seguí FL. COVID-19 and the 5G conspiracy theory: Social network analysis of twitter data. *Journal of Medical Internet Research* [Internet]. 2020 May 1 [cited 2020 Jul 26];22(5):e19458. Available from: <https://www.jmir.org/2020/5/e19458/>
57. Campbell AM. An increasing risk of family violence during the Covid-19 pandemic: Strengthening community collaborations to save lives. *Forensic Science International: Reports* [Internet]. 2020 Dec [cited 2020 Jul 26];2:100089. Available from: <https://dx.doi.org/10.1016%2Fj.fsir.2020.100089>



58. Vigo D, Patten S, Pajer K, Krausz M, Taylor S, Rush B, et al. Mental Health of Communities during the COVID-19 Pandemic [Internet]. Canadian Journal of Psychiatry. SAGE Publications Inc.; 2020 [cited 2020 Jul 26]. p. 070674372092667. Available from: <http://journals.sagepub.com/doi/10.1177/0706743720926676>
59. World Health Organization. Alcohol and COVID-19: what you need to know. Geneva; 2020.
60. Telles LE de B, Valença AM, Barros AJS, da Silva AG. Domestic violence in the COVID-19 pandemic: a forensic psychiatric perspective. Brazilian Journal of Psychiatry [Internet]. 2020 Jun 1 [cited 2020 Aug 5];0(0). Available from: <http://www.bjp.org.br/details/2007/en-US/domestic-violence-in-the-covid-19-pandemic-a-forensic-psychiatric-perspective>
61. Krapp J. Portal.fiocruz. Pesquisa revela dados sobre o consumo de drogas no Brasil [Internet]. 2019 [cited 2020 Jul 26]. Available from: <https://portal.fiocruz.br/noticia/pesquisa-revela-dados-sobre-o-consumo-de-drogas-no-brasil>
62. Neto MLR, de Souza RI, Quezado RMM, Mendonça ECS, de Araújo TI, Luz DCRP, et al. When basic supplies are missing, what to do? Specific demands of the local street population in times of coronavirus – a concern of social psychiatry [Internet]. Vol. 288, Psychiatry Research. Elsevier Ireland Ltd; 2020 [cited 2020 Jul 26]. p. 112939. Available from: <https://doi.org/10.1016/j.psychres.2020.112939>
63. Da BL, Im GY, Schiano TD. COVID-19 Hangover: A Rising Tide of Alcohol Use Disorder and Alcohol-Associated Liver Disease. Hepatology [Internet]. 2020 May 5 [cited 2020 Jul 26];hep.31307. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/hep.31307>
64. Nelson LM, Simard JF, Oluyomi A, Nava V, Rosas LG, Bondy M, et al. US Public Concerns about the COVID-19 Pandemic from Results of a Survey Given via Social Media. JAMA Internal Medicine. American Medical Association; 2020.
65. Dewey C. The Guardian. “Quarantinis” and beer chugs: Is the pandemic driving us to drink? | Coronavirus outbreak [Internet]. The Guardian. 2020 [cited 2020 Jul 26]. Available from: <https://www.theguardian.com/us-news/2020/apr/27/coronavirus-pandemic-drinking-alcohol>
66. Mehra A, Rani S, Sahoo S, Parveen S, Singh AP, Chakrabarti S, et al. A crisis for elderly with mental disorders: Relapse of symptoms due to heightened anxiety due to COVID-19. Asian Journal of Psychiatry [Internet]. 2020 Jun 1 [cited 2020 Jul 26];51:102114. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7166027/>
67. Fatke B, Hölzle P, Frank A, Förstl H. Psychische Probleme in der Pandemie – Beobachtungen während der COVID-19-Krise. DMW - Deutsche Medizinische Wochenschrift [Internet]. 2020 May 9 [cited 2020 Jun 4];145(10):675–81. Available from: <http://www.thieme-connect.de/DOI/DOI?10.1055/a-1147-2889>
68. Organização Pan-Americana da Saúde (OPAS/OMS). Proteção Da Saúde Mental Em Situações De Epidemias [Internet]. 2006 [cited 2020 Jun 9]. Available from: <https://www.paho.org/hq/dmdocuments/2009/Protecao-da-Saude-Mentalem-Situacoes-de-Epidemias-Portugues.pdf>
69. Finlay I, Gilmore I. Covid-19 and alcohol-a dangerous cocktail [Internet]. Vol. 369, BMJ (Clinical research ed.). NLM (Medline); 2020 [cited 2020 Jul 27]. p. m1987. Available from: <https://alcoholchange.org.uk/publication/roles-of-alcohol-in-intimate-partner->
70. Brasil. NOTA TÉCNICA Nº12/2020-CGMAD/ DAPES/ SAPS/ MS [Internet]. 2020 May [cited 2020 Jul 26]. Available from: <http://portal.anvisa.gov.br/documents/219201/4340788/Nota+Te%C2%B4cnica+12+GGTES.pdf/42dfec78-8651-4714-b5dd-e9840f9b6037>
71. Becker WC, Fiellin DA. When Epidemics Collide: Coronavirus Disease 2019 (COVID-19) and the Opioid Crisis. Annals of internal medicine [Internet]. 2020 Jul 7 [cited 2020 Jul 27]; Available from: <https://www.acpjournals.org/doi/abs/10.7326/M20-1210>

72. Chevance A, Gourion D, Hoertel N, Llorca PM, Thomas P, Bocher R, et al. Ensuring mental health care during the SARS-CoV-2 epidemic in France: A narrative review. *L'Encephale*. 2020 Jun 1;46(3):193–201.
73. Organização Pan-Americana da Saúde (OPAS/OMS). OPAS/OMS Brasil - Folha informativa – COVID-19 (doença causada pelo novo coronavírus) [Internet]. OPAS/OMS. 2020 [cited 2020 Jul 27]. Available from: [https://www.paho.org/bra/index.php?option=com\\_content&view=article&id=6101:covid19&Itemid=875](https://www.paho.org/bra/index.php?option=com_content&view=article&id=6101:covid19&Itemid=875)
74. Alexander GC, Stoller KB, Haffajee RL, Saloner B. An Epidemic in the Midst of a Pandemic: Opioid Use Disorder and COVID-19. *Annals of internal medicine* [Internet]. 2020 Jul 7 [cited 2020 Jul 27]; Available from: <https://dx.doi.org/10.7326%2FM20-1141>
75. Dubey MJ, Ghosh R, Chatterjee S, Biswas P, Chatterjee S, Dubey S. COVID-19 and addiction. Diabetes and Metabolic Syndrome: Clinical Research and Reviews [Internet]. 2020 Sep 1 [cited 2020 Jul 27];14(5):817–23. Available from: <https://dx.doi.org/10.1016%2Fj.dsx.2020.06.008>
76. Varma RP. Alcohol withdrawal management during the Covid-19 lockdown in Kerala. *Indian journal of medical ethics*. 2020 Apr 1;V(2):105–6.
77. Ahmed S, Khaium MO, Tazmeem F. COVID-19 lockdown in India triggers a rapid rise in suicides due to the alcohol withdrawal symptoms: Evidence from media reports. *International Journal of Social Psychiatry* [Internet]. 2020 Jun 26 [cited 2020 Jul 27];002076402093880. Available from: <http://journals.sagepub.com/doi/10.1177/0020764020938809>
78. Columb D, Hussain R, O'Gara C. Addiction Psychiatry and COVID-19 – Impact on patients and service provision. *Irish Journal of Psychological Medicine* [Internet]. 2020 May 21 [cited 2020 Jun 5];1–15. Available from: [https://www.cambridge.org/core/product/identifier/S0790966720000476/type/journal\\_article](https://www.cambridge.org/core/product/identifier/S0790966720000476/type/journal_article)
79. Narasimha VL, Shukla L, Mukherjee D, Menon J, Huddar S, Panda UK, et al. Complicated Alcohol Withdrawal—An Unintended Consequence of COVID-19 Lockdown. *Alcohol and Alcoholism*. 2020 Jun 25;55(4):350–3.
80. DEA. U.S. Department of Justice, Drug Enforcement Administration. COVID\_19 Information Page: Telemedicine. 2020.
81. Samhsa. Opioid Treatment Program (OTP) Guidance [Internet]. 2020 [cited 2020 Jul 27]. Available from: [www.samhsa.gov](http://www.samhsa.gov)
82. Moring JC, Dondanville KA, Fina BA, Hassija C, Chard K, Monson C, et al. Cognitive Processing Therapy for Posttraumatic Stress Disorder via Telehealth: Practical Considerations During the COVID-19 Pandemic. *Journal of Traumatic Stress* [Internet]. 2020 Jun 11 [cited 2020 Jul 27];jts.22544. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/jts.22544>
83. Zhou X, Snoswell CL, Harding LE, Bambling M, Edirippulige S, Bai X, et al. The Role of Telehealth in Reducing the Mental Health Burden from COVID-19 [Internet]. Vol. 26, Telemedicine and e-Health. Mary Ann Liebert Inc.; 2020 [cited 2020 Jul 27]. p. 377–9. Available from: [www.blackdoginstitute.org.au/getting-help/self-help-tools-apps](http://www.blackdoginstitute.org.au/getting-help/self-help-tools-apps)
84. Conejero I, Berrouiguet S, Ducasse D, Leboyer M, Jardon V, Olié E, et al. Suicidal behavior in light of COVID-19 outbreak: Clinical challenges and treatment perspectives. *Encephale* [Internet]. 2020 [cited 2020 Jul 27];46(3):S66. Available from: <https://doi.org/10.1016/j.encep.2020.05.001>
85. Kannarkat JT, Smith NN, McLeod-Bryant SA. Mobilization of Telepsychiatry in Response to COVID-19—Moving Toward 21st Century Access to Care. *Administration and Policy in Mental Health and Mental Health Services Research* [Internet]. 2020 Jul 1 [cited 2020 Jul 27];47(4):489–91. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7180652/>
86. Liu S, Yang L, Zhang C, Xiang YT, Liu Z, Hu S, et al. Online mental health services in China during the COVID-19 outbreak [Internet]. Vol. 7, The Lancet Psychiatry. Elsevier Ltd; 2020 [cited

- 2020 Jul 26]. p. e17-8. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7129099/>
87. Varker T, Brand RM, Ward J, Terhaag S, Phelps A. Efficacy of Synchronous Telepsychology Interventions for People With Anxiety, Depression, Posttraumatic Stress Disorder, and Adjustment Disorder: A Rapid Evidence Assessment. *Psychological Services* [Internet]. 2018 May 28 [cited 2020 Jul 27]; Available from: <https://doi.org/10.1037/ser0000239>
88. Barney A, Buckelew S, Meshierakova V, Raymond-Flesch M. The COVID-19 Pandemic and Rapid Implementation of Adolescent and Young Adult Telemedicine: Challenges and Opportunities for Innovation. *Journal of Adolescent Health* [Internet]. 2020 [cited 2020 Jul 26]; Available from: <https://dx.doi.org/10.1016%2Fj.jadohealth.2020.05.006>
89. Burgess C, Miller C, Franz A, Abel EA, Gyulai L, Osse D, et al. Practical lessons learned for assessing and treating bipolar disorder via telehealth modalities during the COVID-19 pandemic. *Bipolar Disorders* [Internet]. 2020 Jul [cited 2020 Jul 26]; bdi.12969. Available from: <https://onlinelibrary.wiley.com/doi/abs/10.1111/bdi.12969>
90. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: Implications and policy recommendations [Internet]. Vol. 33, *General Psychiatry*. BMJ Publishing Group; 2020 [cited 2020 Jul 27]. p. 100213. Available from: <https://gpsych.bmj.com/content/33/2/e100213>
91. Khatri UG, Perrone J, Khatri U. Opioid Use Disorder and COVID-19: Crashing of the Crises. 2020.
92. Harzheim E, Martins C, Wollmann L, Pedebos LA, Faller L de A, Marques MDC, et al. Federal actions to support and strengthen local efforts to combat COVID-19: Primary health care (PHC) in the driver's seat. *Ciencia e Saude Coletiva* [Internet]. 2020 Jun 1 [cited 2020 Jul 27];25:2493-7. Available from: <http://orcid.org/0000-0003-3384-2637>
93. Sarti TD, Lazarini WS, Fontenelle LF, Almeida APSC. Qual o papel da Atenção Primária à Saúde diante da pandemia provocada pela COVID-19? *Epidemiologia e serviços de saúde: revista do Sistema Unico de Saude do Brasil* [Internet]. 2020 [cited 2020 Jul 27];29(2):e2020166. Available from: <http://www.ihu.unisinos.br/78-noticias/596584-o->
94. Underner M, Peiffer G, Perriot J, Jaafari N. Pulmonary complications in cocaine users [Internet]. Vol. 37, *Revue des Maladies Respiratoires*. Elsevier Masson SAS; 2020 [cited 2020 Jun 29]. p. 45-59. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S076184251931037X>
95. World Health Organization. Alcohol brief intervention training manual for primary care. Copenhagen; 2017.
96. Karamouzian M, Johnson C, Kerr T. Public health messaging and harm reduction in the time of COVID-19 [Internet]. Vol. 7, *The Lancet Psychiatry*. Elsevier Ltd; 2020 [cited 2020 Jul 26]. p. 390-1. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7185931/>
97. Associação Saúde da Família. Associação Saúde da Família. Grupos de Anônimos [Internet]. *saudedafamilia.org*. 2020 [cited 2020 Jul 26]. Available from: <http://www.saudedafamilia.org/wp/index.php/pt/home/rede-atendimento-emocional-psicologico/grupos-de-anonimos/>
98. Brasil, Cidadania e Assistência Social. Comunidades Terapêuticas e grupos auxiliam quem precisa de apoio durante pandemia — Português (Brasil) [Internet]. *gov.br*. 2020 [cited 2020 Jul 26]. Available from: <https://www.gov.br/pt-br/noticias/assistencia-social/2020/06/comunidades-terapeuticas-e-grupos-auxiliam-quem-precisa-de-apoio-durante-pandemia>
99. Hoffman J. The New York Times. Online Help to Stay Sober During a Pandemic [Internet]. *The New York Times*. [cited 2020 Jul 26]. Available from: <https://www.nytimes.com/2020/03/26/health/coronavirus-sobriety-online-help.html>

100. Alcoólicos Anônimo. Alcoólicos Anônimo do Brasil. COVID19 [Internet]. Alcoólicos Anônimo do Brasil. 2020 [cited 2020 Jul 26]. Available from: <https://www.aa.org.br/membros/covid19>
101. Laranjeira R, VEJA. Como dependentes de álcool e drogas estão vivendo no isolamento social [Internet]. veja.abril. 2020 [cited 2020 Jul 26]. Available from: <https://veja.abril.com.br/blog/letra-de-medico/como-dependentes-de-alcool-e-drogas-estao-vivendo-no-isolamento-social/>

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# Competencies with an emphasis on patient safety during nursing training

## Competências com ênfase na segurança do paciente durante a formação em enfermagem

## Competencias con énfasis en la seguridad del paciente durante la formación de enfermería

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**How to cite:** Sousa AR, Silva HS, Santos NVC. Competencies with an emphasis on patient safety during nursing training. REVISA. 2021; 10(4): 656-69. Doi: <https://doi.org/10.36239/revisa.v10.n4.p656a669>

# REVISA

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Received: 17/07/2020  
Accepted: 29/09/2020

### RESUMO

**Objetivo:** Sintetizar o conhecimento disponível na literatura nacional e internacional sobre as competências desenvolvidas na formação em Enfermagem com ênfase na segurança do paciente. **Método:** revisão integrativa da literatura realizada nas bases de dados eletrônicas Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science e Medline, que incluiu estudos publicados no período de 2012 a 2018. **Resultados:** Foram identificados 19 artigos, que desvelaram as competências como identificação, notificação, prevenção e gerenciamento de eventos, controle de infecção, trabalho em equipe, comunicação efetiva, utilização de evidências, informação, agir ético, liderança, aprendizagem contínua e compreensão humana. **Conclusão:** Os estudos analisados revelam as competências desenvolvidas durante a formação em Enfermagem com ênfase na segurança do paciente têm sido pouco abordadas no processo formativo, configurando-se na necessidade de reforma inovadora.

**Descritores:** Enfermagem; Educação em Enfermagem; Segurança do Paciente.

### ABSTRACT

**Objective:** To synthesize the knowledge available in national and international literature on the skills developed during nursing education with an emphasis on patient safety. **Method:** integrative literature review carried out in the electronic databases Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science and Medline, which included studies published from 2012 to 2018. **Results:** 19 articles were identified, who unveiled competences such as identification, notification, prevention and management of events, infection control, teamwork, effective communication, use of evidence, information, ethical action, leadership, continuous learning and human understanding. **Conclusion:** The studies analyzed reveal the skills developed during nursing training with an emphasis on patient safety have been little addressed in the training process, configuring the need for innovative reform.

**Descriptors:** Nursing; Nursing Education; Patient safety.

### RESUMEN

**Objetivo:** Sintetizar los conocimientos disponibles en la literatura nacional e internacional sobre las habilidades desarrolladas durante la formación en enfermería con énfasis en la seguridad del paciente. **Método:** revisión integradora de la literatura realizada en las bases de datos electrónicas Scielo, BDENF, LILACS, Mediline, PubMed, CINAHL, Scopus, Web of Science y Medline, que incluyó estudios publicados entre 2012 y 2018. **Resultados:** Se identificaron 19 artículos, quien develó competencias como identificación, notificación, prevención y gestión de eventos, control de infecciones, trabajo en equipo, comunicación efectiva, uso de evidencia, información, acción ética, liderazgo, aprendizaje continuo y entendimiento humano. **Conclusión:** Los estudios analizados revelan que las habilidades desarrolladas durante la formación en enfermería con énfasis en la seguridad del paciente han sido poco abordadas en el proceso formativo, configurando la necesidad de una reforma innovadora.

**Descriptores:** Enfermería; Educación en enfermería; Seguridad del paciente.



## Introduction

Ensuring patient safety is a global challenge, taken on by several developed and developing countries that have committed to implementing strategies or interventions capable of exponentially reducing the risk of harm during health care. Professional errors are considered a serious public health problem because they generate significant impacts on patients, professionals and health institutions, needing to be combated in order for the health process to occur safely.

However, achieving this goal has not been an easy task, as it involves several actions and also involves a review of the current professional training in Nursing, especially with regard to the development of specific skills. Investments are essential for training, research and implementation of practices aimed at preventing these errors, which will improve the quality of care provided. At the same time, the topic needs to be treated with priority by health professionals and institutions, in order to expand the promotion of a safety culture in health organizations.<sup>1</sup>

After the publication of the impactful report *To Err is Human: Building a Safer Health Care System*, from the Institute of Medicine (IOM), in the late 90s, several worldwide mobilizations demanded the implementation of actions to promote the safety culture. According to this report, between 44,000 and 98,000 deaths in the United States due to human error were registered annually, in addition to the persistent high incidence of adverse events in health care.<sup>2</sup> Based on these estimates and after intense social pressure, the World Health Organization (WHO) established, in 2004, the World Alliance for Patient Safety (World Alliance for Patient Safety). As a result, Brazil and other countries began to encourage the development and implementation of public policies in favor of patient safety.<sup>3</sup>

Specifically in the Brazilian context, the National Patient Safety Program (PNSP) and the Resolution of the Collegiate Directorate (RDC) 36/13 are established, both joint actions between the Ministry of Health and the National Health Surveillance Agency (ANVISA). The objective is to implement safety protocols in hospitals and other health services, as well as risk management and the creation of the Patient Safety Center (NSP) and the proper notification system for this purpose.<sup>4</sup>

In this scenario, the participation of Nursing stands out, through the implantation of the Brazilian Network of Nursing and Patient Safety, in 2008. Supported by the Pan American Health Organization (PAHO), this Network has, as its main action, disseminate the relevance of a new approach in relation to these errors and implement a broad and less punitive safety culture in health institutions.<sup>5</sup>

Deficient safety cultures in healthcare are strongly associated with high error rates. Currently, the promotion of attitudes in favor of greater security is impaired, since punitive management models and attitudinal variations in the specific care roles played by different health professionals predominate. Punitive environments, focused on guilt, discourage dialogue and teamwork and compromise changes in levels in the health system that could contribute to greater security, which require continuous and lasting efforts.<sup>6</sup>

These professional errors present in nursing care are largely due to unsafe conduct, such as lack of checking drugs and inappropriate use of personal protective equipment, in addition to being associated with the institutional system, expressed by deficit in the quality of material inputs. and absence of rules and routines. It is important to know that errors do not occur in isolation, as they include the institution and the workers involved in these situations, which denotes the need for a more comprehensive approach.<sup>8</sup>

Thus, the safety culture needs to be discussed and promoted as an important element of education to transform practices. Although it is not an easy task, given the challenge of sensitizing professionals and the adoption of profound changes in care processes.<sup>9</sup>

In this scenario, the identification of curricular innovations aimed at improving patient safety can favor the qualification of teamwork and the development of communication skills among students.<sup>10</sup> In the future, this may enhance professional performance through the preparation of extensive reports errors, improve communication between different positions and sectors and the effective implementation of security procedures.<sup>11</sup>

Currently, this is a scenario still only idealized, given the various limitations present in the scope of training with an emphasis on patient safety, given that there are profound variations between educational institutions in terms of the quality of the content and curriculum with an emphasis on safety<sup>6</sup>. In this sense, the relevance of prioritizing patient safety during academic training is highlighted, as a way to strengthen future performance in the workplace.<sup>12</sup>

Academic training in this sense, assumes an important role, especially in facing new challenges and overcoming weaknesses, evidenced in the presence of fragmented, outdated, static curricula and with problems in the skills developed and incompatibility with the real needs of the population. The reflection of this incompatibility is revealed in the conduct with technical, restrictive, non-contextual and discontinuous care.<sup>13</sup>

In view of the limitations, it is advocated that environments that promote safety are encouraged through the adoption of robust, contextual, problematizing curricula that respond to the demands of the population. As a reflex, articulations are expected to form strong teams committed to promoting safe care. In this scenario, the nursing professional has the opportunity to stand out by exercising leadership and to promote the necessary changes and transformations, being able to print higher quality to the assistance.<sup>14-15</sup>

Thus, since Nursing professionals represent an expressive part in the production of health care, crucial to the achievement of international patient safety goals, this study sought to investigate what are the competencies to be developed during nursing training in order to promote patient safety? To this end, the following objective was defined: Synthesize the knowledge available in national and international literature on the skills developed during nursing training with an emphasis on patient safety.

## Method

It is an integrative literature review, a method that allows a broad understanding of the phenomenon of interest, in addition to highlighting knowledge gaps to be explored in new investigations, according to the criteria defined in the Revised Standards for Quality Improvement Reporting Excellence, SQUIRE 2.0.<sup>16</sup>

The operationalization of this review included five stages: identification of the problem; establishment of inclusion and exclusion criteria for studies and bibliographic research; definition of the information to be extracted from the studies and categorization; evaluation of selected studies; analysis of results and presentation of the review with subsequent synthesis of the knowledge obtained.<sup>17</sup>

The study was organized according to the PICO strategy (P - population; I - intervention / area of interest; C - comparison; O - outcomes / outcome and S = Type of Study). Thus, the structure was considered: P - nurses; I - training skills; C - Without comparison; O - patient safety and S - Qualitative, Descriptive, Experimental Studies (clinical trials and quasi-experiments) or Observational Studies (case reports, case series, control cases, cohort and cross-sectional). It was guided by the following research question: what are the skills to be developed during nursing training in order to favor patient safety?

To answer it, searches were carried out in the scientific databases Electronic Scientific Library Online (SciELO), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Nursing Database (BDENF) of the Latin American and Caribbean Center of Health Sciences Information (BIREME) Latin American and Caribbean Health Sciences Literature (LILCAS), Sciverse Scopus (SCOPUS) Elsevier, Medical Literature Analysis and Retrieval System Online (Medline), PubMed from the National Library of Medicine and Web of Science.

The searches for the manuscripts took place by inserting the controlled descriptors Nursing, Nursing Education and Patient Safety, present in the Health Sciences Descriptors Bank (DeCS) and in the Medical Subject Headings (MeSh). For titles, the descriptors CINAHL Nursing, Patient Safety and Education, Nursing were used. Data collection took place between the months of May and July 2018, through the junctions: junctions: Nursing AND Patient Safety AND Education, Nursing; Education, Nursing AND Patient Safety; Nursing AND Patient Safety.

The uncontrolled terms (keywords) were: Nursing training, Training skills. To systematize the sample collection, the combination of Boolean operators "OR" and "AND" was used and, then, different search strategies were applied, considering the peculiarities and distinct characteristics of the accessed bases. The syntax of the searches in each database is described in the overview table.<sup>1</sup>

The studies included in this review obeyed the following criteria: being an article, available in full, in English, Spanish or Portuguese, that answered the guiding question of the research, with no time frame. Repeated publications in databases, reviews, conference abstracts, annals of scientific events, editorials, monographs, dissertations, theses, as well as investigations with unclear design or objective were excluded, as instructed by the instrument adapted from the Critical Appraisal Skills Program (CASP).<sup>18</sup>

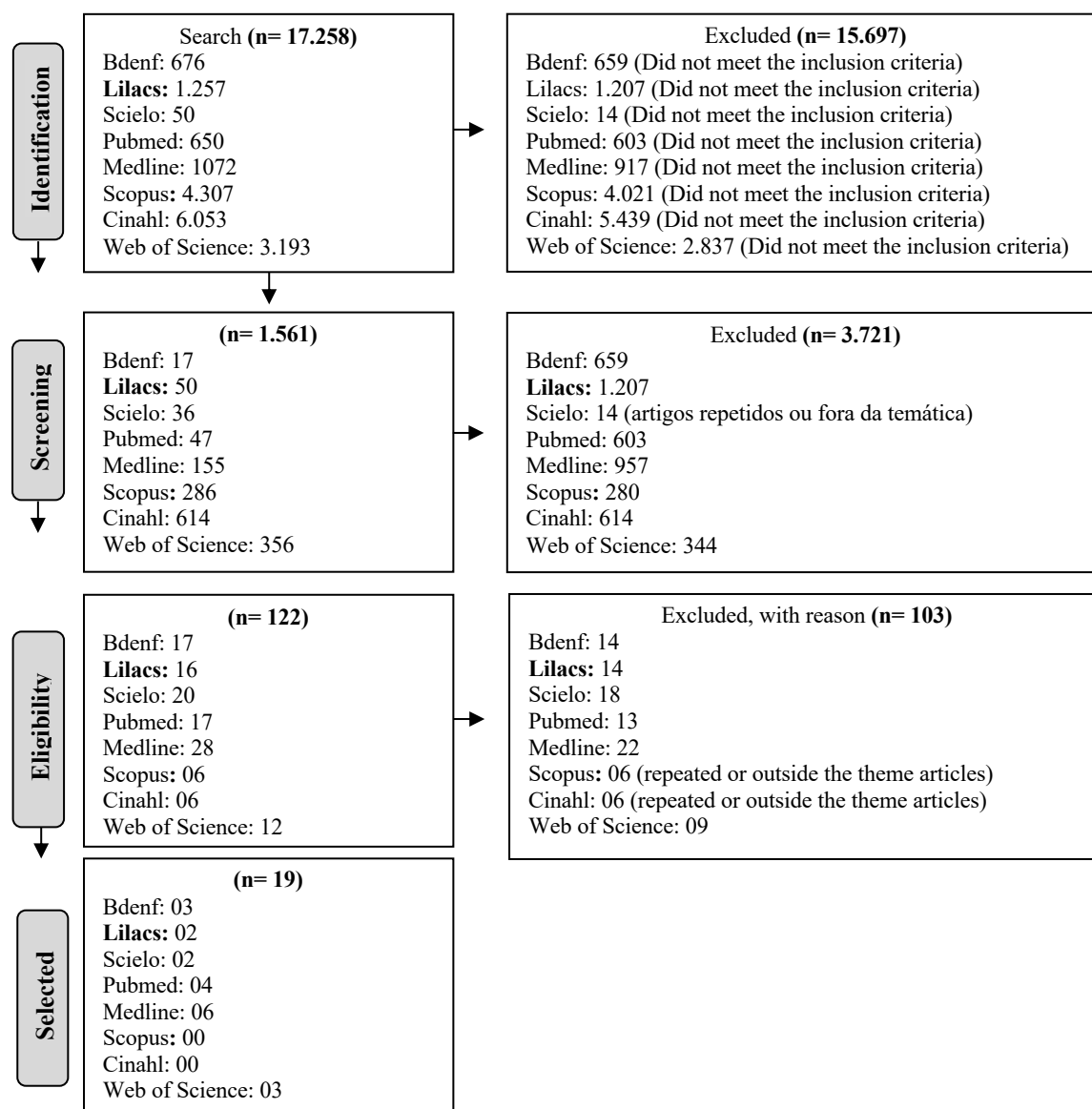
The inclusion of descriptors in the databases was carried out by four authors independently, following the peer review, guided by a checklist previously prepared, also following the checklist proposed by the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA), which also allowed to raise the degree of evidence of the studies.

To qualitatively evaluate the methods described in the studies, the Joanna Briggs Institute tools were used: JBI Critical Appraisal Checklist descriptive / Case Series and JBI critical Appraisal Checklist for Comparable Cohort / Case control and, to evaluate observational studies of the case report type, case series and cohort, the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist was used.<sup>19</sup>

After checking the results and agreeing on the disagreements, the studies were analyzed again by a team composed of a master and two doctors, researchers in the area. In this stage, the titles were read, the inclusion criteria were verified, and the abstracts and the full texts were read, for later inclusion in the review. We sought to eliminate any systematic errors or any bias in the measurement of the studies and ensured methodological rigor and reliability of results.<sup>20</sup>

In cases where disagreements occurred, a discussion was held between the evaluators and an analysis by a third evaluator was requested to reach consensus. The results of this process, in turn, allowed the elaboration of synoptic tables based on the selected variables. The syntax of the study inclusion and exclusion process in the review is described below (Figure 1):

**Figure 1-** Syntax of search and selection of publications by database.



## Results

The findings regarding the characterization of the studies regarding the article identification code (example A1, A2 and subsequent), published journal, year, indexed databases, language, country of origin, degree of evidence and main results, are described below (Table 1):

**Chart 1-** Characterization of publications regarding the main results. Brazil, 2018.

<b>Identification Code (CI) / Periodical of publication / Year / Database / Language / Country of origin / Degree of Evidence.</b>
<b>Main results (competences in nursing education with an emphasis on patient safety).</b>
<b>A1</b> - Rev. Ana Nery de Enf. 2017. LILACS. Portuguese. Brazil. Degree of Evidence: 6 The contents covered during the training do not prioritize the subject of patient safety and express a focused, curative approach, directed mainly to clinical approaches. Infection prevention and control stood out as competences.
<b>A2</b> - Rev. Ana Nery de Enf. 2016. LILACS. Portuguese. Brazil. Degree of Evidence: 6 The following competencies emerged: learning through mistakes, identification and notification, teamwork, cultural transformation, transposition of the biomedical model for comprehensive care, consumption and production of research and permanent health education. The study pointed out the need for curricular changes in training courses and to invest in education on patient safety.
<b>A3</b> - Nurse Educ Today. 2018. PubMed. English. Australia. Degree of Evidence: 6 Approaches to teaching patient safety vary considerably between universities. There was a tendency to integrate the disciplines of the undergraduate nursing course in relation to teaching safety skills, instead of being explicitly taught in separate and autonomous disciplines.
<b>A4</b> - Worldviews Evid Based Nurs. 2017. PubMed. English. USA. Degree of Evidence: 4 In general, nurses lacked skills in patient safety practices. Those younger and with higher levels of education reported greater competence.
<b>A5</b> - PLoS One. 2017. PubMed. English. South Korea. Degree of Evidence: 3 In practice, nursing educators showed high levels of competence in patient safety in comparison with theoretical knowledge in this regard..
<b>A6</b> - Text Contexto Enferm. 2015. BDENF. Portuguese. Brazil. Degree of Evidence: 6 The study showed, through the Network's action strategies, nursing education with an emphasis on patient safety, investigation and dissemination of knowledge, mobilization of professionals, care institutions and schools, extension of knowledge to communities and participation in policy making public.
<b>A7</b> - Rev. Baiana de Enferm. 2017. BDENF. Portuguese. Brazil. Degree of Evidence: 4 The competencies for patient safety identified through the analysis of undergraduate curricula were: effective communication, identification, prevention and management of adverse events, use of evidence and information, working safely, acting ethically, continuous learning and other topics such as infection prevention and control, attention to invasive procedures and improvement in drug therapy. These competencies must be incorporated into the political-pedagogical projects of undergraduate health courses, as well as strategies capable of aligning the contents of the various health disciplines. According to the study, this still occurs in a disjointed and heterogeneous way.
<b>A8</b> - Rev. ideroam. educ. invest. nursing. 2012. BDENF. Portuguese. Brazil. Degree of Evidence: 4 The study indicated high relevance of incorporating patient safety content into the curriculum for improving clinical practice and better positioning the patient at the center of the health system.
<b>A9</b> - Rev. Gaúcha Enferm. 2015. Scielo. Portuguese. Brazil. Degree of Evidence: 6 The changes in nursing practice, as a way to improve patient safety, were identified, such as management and proposing a care plan according to the care and physical risks identified in the inpatient unit. It also revealed deficiencies such as the lack of adequate structure, lack of financial resources and deficiency of human resources as elements that hamper patient safety.
<b>A10</b> - Revista Gaúcha de Enferm. 2016. Scielo. Portuguese. Brazil. Degree of Evidence: 6 The study concluded that educational measures, as a way of reinforcing the established routine for patient identification, are fundamental for the consolidation of practices, optimizing patient safety in health institutions. In this study, three strategies were used: an institutional

educational campaign, the elaboration of a distance learning (EaD) course and the creation and availability of a course, in the EaD modality, on the risk identification process. The need for complementary research was also highlighted, to monitor this and other indicators that may indicate weaknesses and opportunities for improvements in patient safety.
<b>A11</b> - Nurse Education in Practice. 2016. Mediline. English. USA. Degree of Evidence: 6 The introduction of the subject of patient safety in the training of nurses is an example of an innovative reform that associates higher education institutions with health organizations to better prepare nursing students who will soon be working in the complex healthcare environment. Through the intentional integration of Quality and Safety Education for Nurses (QSEN) across the curriculum and the development of more effective partnerships with healthcare organizations, great progress can be made towards improving students' clinical experiences and ensuring that they are prepared to meet the current and future health needs of the population.
<b>A12</b> - Nursing & Health Sciences. 2016. Mediline. English. South Korea. Degree of Evidence: 4 The work reinforced the need to revise the nursing curriculum and use various teaching methods to promote patient safety education in a more comprehensive and effective way. In addition, he stressed the importance of developing an integrated approach to ensure balanced student competence.
<b>A13</b> - J Prof Nursing. 2015. Mediline. English. England. Degree of Evidence: 4 The study gave students and the academic team a chance to reflect on the self-assessed attitude, the students' knowledge and effectiveness regarding the subject of patient safety. It also provided early indicators for areas where students' attitudes toward understanding patient safety have improved.
<b>A14</b> -Journal of Clinical Nursing. 2015. Mediline. English. Philandia and England. Degree of Evidence: 4 The study concluded that a structured and reproducible mini-course on patient safety can be associated with an improvement in several domains in the patient safety culture.
<b>A15</b> - Curations. 2015. Mediline. English. South Africa. Degree of Evidence: 4 The results suggest that nurses have favorable perceptions about the quality and safety of the care provided in surgical units of private hospitals in Gauteng in South Africa. The study identified aspects that must be addressed by management, as they can impair quality and safety patient care, for example, institute registration of medication errors.
<b>A16</b> - Journal Nurse Education. 2012. Mediline. English. Canada. Degree of Evidence: 6 There is a need to link classroom and clinical learning more closely. It was concluded that future prospective investigations are necessary to increase knowledge about the approach to educational approaches, both in the classroom and in clinical settings, throughout the study program. Ultimately, it was pointed out that the responsibility for preventing individual and system errors and increasing patient safety must be shared by academics.
<b>A17</b> - Journal of Research in Nursing. 2015. Web of Science English. USA. Degree of Evidence: 6 Nurses are not able to meet competencies, and it is imperative to improve skills in evidence-based practices in order to guarantee the highest quality of care and the best results. Academic programs must ensure the achievement of competencies during the period of graduation, just as health systems must define them as a standard expectation to be reached by all.
<b>A18</b> - International Journal of Health Sciences. 2015. Web of Science English. Saudi Arabia. Degree of Evidence: 4 New models of competence can expand nurses' ability to act as emotionally intelligent leaders, which help to implement organizational changes in the development and promotion of safety cultures.

The assessed articles were published in the period from 2012 to 2018 and are distributed unevenly in the six databases accessed: 11 in the English language and 7 in the English, Portuguese and Spanish languages. The countries that stood

out most in the investigation on the subject were the United States, Brazil and South Korea, although Australia, Saudi Arabia, Finland, England, Canada and South Africa have also developed scientific production in this regard.

As for the characteristics of the publications, they were published in journals of the type newspaper or magazine. Researchers with undergraduate, master, doctorate and postdoctoral degrees participated in these studies, and a large part was developed in educational institutions, with the help of undergraduate students, professors and graduated professionals, working in care practice.

With regard to the methodological approaches adopted, different methods and techniques were identified, with a predominance of qualitative, followed by quantitative, under cross-sectional, analytical, exploratory, descriptive, associative, cross-sectional studies.

The instruments used for data collection and organization also varied: interviews, analysis of course curricula, use of databases to access curricula, use of software for qualitative analysis, application of questionnaires, statistical analysis programs for data analysis and statistical tests. Regarding the fulfillment of ethical criteria in research involving human beings, the studies analyzed mentioned compliance with these criteria provided for in national and international resolutions.

## Discussion

The results show that the theme of patient safety in the training of nursing professionals and, consequently, actions for safety in processes related to patient care and interpersonal relationships in the health team have been kept in the background. There was an overvaluation of contents that provide clinical skills, such as diagnosis and treatment of diseases, both in undergraduate and in multiprofessional and postgraduate residency programs. In addition, in the rare moments when these topics are discussed, the approach was only punctual and free of in-depth critical reflections.<sup>8</sup>

Thus, patient safety has not been seen as a competence to be developed during graduation, with the culture of guilt predominating in the concept of safety by nursing students, which leads to mistakes when interpreting the error as failure.<sup>20</sup>

To eliminate practices like this, the Australian Commission for Safety and Quality, Health Care<sup>21</sup> started to highlight the importance of open and blameless disclosure regarding care failures, so that professionals are not punished for reporting these situations.

A study carried out in China revealed that health students felt more comfortable when developing activities of a clinical nature than those focused on socio-cultural aspects contextually related to patient safety, such as teamwork, risk management and safety.<sup>22</sup>

Another research identified the invisibility of the theme community infection in the context of training, although it is an extremely important topic. This denotes the training still centered on the hospital-centered model, strongly directed towards the cure of the patient on the part of the health professionals, including nursing, who remain distant from the premises that involve the prevention of infections related to health care.<sup>20</sup>

It is apprehended, therefore, that it is necessary to explore this theme better, so that it affects the effective incorporation of preventive actions during care practice, as envisaged by the National Curriculum Guidelines for undergraduate courses. New changes and / or readjustments in teaching / learning should incorporate the theoretical-practical framework of patient safety, inserting it into the curricular matrices and making it the object of professional health education. It is also necessary to have the support of teachers prepared to discuss this issue, which reiterates the need to review the current pedagogical concept of doing health.<sup>8</sup>

The application of the so-called active methodologies in the teaching / learning process for patient safety, like the conversation circles, proved to be effective and beneficial for professional training. These methodologies have been incorporated into permanent health education, which is a strategy used by institutions to redesign the fundamentals and notions of health professionals and their theoretical-practical relationship focused on safety culture.<sup>8</sup> Such methodological resources have allowed changes in the daily practices that favor the achievement of national and international goals for patient safety, as they show experiences related to the occurrence of professional errors that, collectively, expand learning, as well as diversify the strategies of sharing knowledge and skills to mitigate failures. The use of these methodologies also contributes to satisfactory performance in the world of work in order to reduce the occurrence of adverse events, for example.

With regard to competencies, initiatives were identified in the studies analyzed with the objective of promoting them, such as the Nursing Education and Quality Project for nurses (QSEN), in the United States.<sup>23</sup> This Project presented, for the first time, six competencies widely adopted today by nursing professionals as a way to favor curricular integration and the practice model, namely: patient-centered care, teamwork, evidence-based practice, quality improvement, security and IT.<sup>23</sup>

Globally, such competencies have become more comprehensive when incorporated into the sub-dimensions of a patient safety culture. However, in order to be applied effectively, other factors must be present: leadership, communication and learning organization.<sup>24</sup>

Also in this sense, the World Health Organization (WHO), through the preparation of the Multiprofessional Guide to the Patient Safety Curriculum<sup>25</sup>, presented dimensions to be included in the curricula of health courses with a focus on patient safety, such as communication effective, identification, prevention and management of adverse events, use of evidence and information, work safely, act ethically and continuous learning.<sup>26</sup>

Although these recommendations already exist, there is a shortage of nurses who use practical skills, such as Evidence-Based Practice (EBP), which is one of the safest required skills for care.<sup>27</sup> Gaps in nursing undergraduate curricula also persist in terms of work aimed at achieving competencies that favor patient quality and safety.<sup>28-29</sup>

Cross-sectional study conducted in 18 Australian universities analyzed the Nursing curricula and identified that the teaching of content related to patient safety varied considerably in the investigated institutions.<sup>30</sup> This highlights the importance of instituting a standardized curriculum to address this issue, so that



in the future it favors the adoption of an organizational standard with a view to security.<sup>30</sup>

To achieve curricular transformation, there is a need for a comprehensive and challenging renewal, through the incorporation of practical learning within the scope of clinical activities that involve infection control, prevention of pressure injuries and medication administration, also capable of including strategies for skills development.<sup>28-30</sup>

As for the knowledge of nursing teachers about the skills and knowledge about practices for patient safety, this proved to be relatively low. It is inferred, based on the studies analyzed, that this is due to weaknesses in obtaining theoretical knowledge on the subject, as well as a deficit in continuing education, requiring improvements.<sup>5,28-29</sup>

Although weaknesses have been identified in the development of skills for patient safety on the part of teachers and also students, studies have highlighted that some actions aimed at achieving these skills have provided positive results. A study carried out in Porto Alegre, Rio Grande do Sul, Brazil, showed that the development of educational strategies and the adoption of conducts to strengthen the safety culture in the institution contributed to better patient identification.<sup>30</sup>

Similar results were found in a research carried out in a philanthropic hospital in the United States with 5,232 patients per day. According to the study, the implementation of these strategies enabled several benefits, with emphasis on the identification of care risks, adoption of measures and forms for risk management, notification of adverse events, protocols, multiprofessional meetings and permanent education.<sup>31</sup>

## Conclusion

The studies analyzed reveal the skills developed during the training in Nursing with an emphasis on patient safety have been little addressed in the training process, configuring the need for innovative reform. Because the biomedical model, centered on the clinic, still predominates, curricular changes are necessary, both in terms of content integration so that the topic is discussed in all disciplines, as well as that there is a standardization among universities, in view of the various curricular variations found.

Among the competences presented, identification, notification, prevention and management of events, infection control, teamwork, effective communication, use of evidence, information, ethical action, leadership, continuous learning and human understanding stood out.

As more comprehensive and effective strategies for achieving competencies, the studies proposed: curriculum revision, use of varied teaching and learning methods, narrowing classroom and clinical learning and improving evidence-based practical skills.

It is noteworthy that the approach to patient safety, as a competence to be developed during nursing training, promotes improvement of clinical practice and patient care in the health system. Likewise, it mobilizes professionals, assistance and academic institutions for the participation and elaboration of public policies related to this issue and the expansion of management and leadership capacity.

In view of the above, studies are recommended that investigate and encourage the development of skills for the sake of patient safety during undergraduate nursing, with a view to improving the quality of teaching, professional training and health care.

## Acknowledgment

This research did not receive funding to be done.

## References

1. Mello JF, Barbosa SFF. Patient Safety Culture in Intensive Care: Nursing Contributions. *Texto Contexto Enferm*. [Internet]. 2013; [cited 2018 Aug 12]. 22(4):1124-33. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S010407072013000400031](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S010407072013000400031).
2. Kohn LT, Corrigan JM, Donaldson MS, Committee on Quality of Health Care in America, Institute of Medicine. To err is human: building a safer health system [Internet]. Washington: National Academy Press; 2000 [cited 2018 Ago 12]. Available from: <http://www.nap.edu/catalog/9728.html>
3. Capucho HC, Cassiani SHB. Necessidade de implantar programa nacional de segurança do paciente no Brasil. *Rev. Saúde Pública* [Internet]. 2013 [cited 2019 Feb 12]; 47(4):791-798. Available from: <https://www.scielo.br/pdf/rsp/v47n4/0034-8910-rsp-47-04-0791.pdf>
4. Brasil. Ministério da Saúde. Fundação Oswaldo Cruz. Fiocruz. Agência Nacional de Vigilância Sanitária. Documento de referência para o Programa Nacional de Segurança do Paciente [Internet]. Brasília: Ministério da Saúde; 2014 [cited 2019 Feb 12]. Available from: [http://bvsms.saude.gov.br/bvs/publicacoes/documento\\_referencia\\_programa\\_nacional\\_seguranca.pdf](http://bvsms.saude.gov.br/bvs/publicacoes/documento_referencia_programa_nacional_seguranca.pdf)
5. Caldana G, Guirardello EB, Urbanetto JS, Peterlini MAS, Gabriel CS. Rede brasileira de enfermagem e segurança do paciente: desafios e perspectivas. *Texto Contexto Enferm* [Internet]. 2015; [cited 2018 Aug 12]; 24(3): 906-11. Available from: [http://www.scielo.br/pdf/tce/v24n3/pt\\_0104-0707-tce-24-03-00906.pdf](http://www.scielo.br/pdf/tce/v24n3/pt_0104-0707-tce-24-03-00906.pdf)
6. Nie Y, Li L, Duan Y, Chen P, Barraclough BH, Zhang M, et al. Patient Safety Education for undergraduate medical students: a systematic review. *BMC Med Educ* [Internet] 2011 [cited 2019 Feb 12]; 11(33). Available from: <https://bmcmmededuc.biomedcentral.com/articles/10.1186/1472-6920-11-33>
7. Duarte SCM, Queiroz ABA, Büscher A, Stipp MAC. O erro humano no cotidiano da assistência de enfermagem em terapia intensiva. *Rev. Latino-Am. Enfermagem* [Internet]. 2015; [cited 2018 Aug 12]. 23(6):1074-81. Available from: [http://www.scielo.br/pdf/rlae/v23n6/pt\\_0104-1169-rlae-23-06-01074.pdf](http://www.scielo.br/pdf/rlae/v23n6/pt_0104-1169-rlae-23-06-01074.pdf)
8. Wegner W, Silva SC, Kantorski KJC, Predebon CM, Sanches MO, Pedro ENR. Educação para cultura da segurança do paciente: Implicações para a formação profissional. *Esc. Anna Nery* [Internet]. 2016 [cited 2019 Feb 12]; 20(3):e20160068. Available from: <https://www.scielo.br/pdf/ean/v20n3/1414-8145-ean-20-03-20160068.pdf>
9. Aboumatar HJ, Thompson D, Wu A, Dawson P, Colbert J, Marsteller J, et al. Development and evaluation of a 3-day patient safety curriculum to advance

- knowledge, self-efficacy, and systems thinking among medical students. *BMJ Quality & Safety* [Internet]. 2012; 21(5):416-22. Available from: <https://qualitysafety.bmj.com/content/21/5/416>
10. Agency for Healthcare Research and Quality. AHRQ Patient Safety Network—safety culture. U.S. Department of Health & Human Services. EUA. [Internet] 2018. [cited 2018 Aug 15]. Disponível em: <http://psnet.ahrq.gov/primer.aspx?primerID=5>
11. Wong BM, Etchells EE, Kuper A, Levinson W, Shojania KG. Teaching Quality Improvement and Patient Safety to Trainees: A Systematic Review. *Academy Medicine* [Internet]. 2010 [cited 2019 Feb 12]; 85(9):1425-39. Available from: <https://insights.ovid.com/crossref?an=00001888-201009000-00013>
12. Frenk JMD, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. *The Lancet* [Internet] 2010; [cited 2018 Aug 15] 376(9756):1923-58. Available from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(11\)60492-3/fulltext?code=lancet-site](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(11)60492-3/fulltext?code=lancet-site)
13. Liao JM. Patient safety: an educational competency. *The Lancet* [Internet]. 2012; [cited 2018 Aug 15]; 379(9830):1933. Available from: <https://www.thelancet.com/action/showPdf?pii=S0140-6736%2812%2960833-2>
14. Sherwood G. Perspectives: Nurses' expanding role in developing safety culture: Quality and Safety Education for Nurses - competencies in action. *J Research in Nursing* [Internet]. 2015 [cited 2019 Feb 12]; 20(8):734-740. Available from: <http://journals.sagepub.com/doi/pdf/10.1177/1744987115621142>
15. Whittemore R, Knafl K. The integrative review: updated methodology. *J Adv Nurs* [Internet]. 2005 [cited 2019 Feb 12]; 52(5):548-53. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/16268861>
16. Mendes KS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto contexto - enferm.* [Internet]. 2008 [cited 2019 Feb 12]; 17(4):758-764. Available from: <https://www.scielo.br/pdf/tce/v17n4/18.pdf>
17. Stillwell SB, Fineout-Overholt E, Melnyk BM, Williamson KM. Evidence-based practice, step by step: asking the clinical question: a key step in evidence-based practice. *Am J Nurs* [Internet]. 2010 [cited 2019 Feb 12]; 110(3):58-61. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/20179464>
18. Malta M, Cardoso LO, Bastos FI, Magnanini MMF, Silva CMFP. Iniciativa STROBE: subsídios para a comunicação de estudos observacionais. *Rev. Saúde Pública* [Internet]. 2010 [cited 2019 Feb 12]; 44(3):559-565. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S003489102010000300021&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S003489102010000300021&lng=en)

19. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;19(6):349-57. doi: <http://intqhc.oxfordjournals.org/content/19/6/349.long>
20. Bim LL, Bim FL, Silva AMB, Sousa AFL, Hermann PRS, Andrade D, et al. Aquisição teórico-prática de tópicos relevantes à segurança do paciente: dilemas na formação de enfermeiros. *Esc. Anna Nery* [Internet]. 2017 [cited 2019 Feb 12]; 21(4):e20170127. Available from: [https://www.scielo.br/pdf/ean/v21n4/pt\\_1414-8145-ean-2177-9465-EAN-2017-0127.pdf](https://www.scielo.br/pdf/ean/v21n4/pt_1414-8145-ean-2177-9465-EAN-2017-0127.pdf)
21. Australian Commission on Safety and Quality in Health Care. Annual Report 2012/2013 [Internet]. Sydney: ACSQHC; 2013 [cited 2019 Feb 12]. Available from: <https://www.safetyandquality.gov.au/wpcontent/uploads/2013/10/Finaltagged-PDF-for-Web-Annual-Report-2012-13.pdf>
22. Lee NJ, Jang H, Park SY. Patient safety education and baccalaureate-nursing students' patient safety competency: A cross-sectional study. *Nurs Health Sci* [Internet]. 2016 [cited 2019 Feb 12]; 18(2):163-171. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26306563>
23. Cronenwett L, Sherwood G, Barnsteiner J, Disch J, Johnson J, Mitchell P, et al. Quality and safety education for nurses. *Nurs Outlook* [Internet]. 2007 [cited 2019 Feb 12]; 55(3):122-131. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/17524799>
24. Sammer CE, Lykens K, Singh KP, Mains DA, Lackan NA. What is patient safety culture? A review of the literature. *J Nurs Scholarsh* [Internet]. 2010 [cited 2019 Feb 12]; 42(2):156-165. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/20618600>
25. World Health Organization. Patient safety curriculum guide: multi-professional edition. Geneva; 2011 [cited 2017 Apr 26]. Available from: <https://apps.who.int/iris/handle/10665/44641>
26. Melliro MM, Tronchin DMR, Lima ML, Garzin ACA, Martins MS, Cavalcante MBC et al. Temática segurança do paciente nas matrizes curriculares de escolas de graduação em enfermagem e obstetrícia. *Rev. baiana enferm* [Internet]; 2017 [cited 2019 Feb 19]; 31(2):e16814. Available from: <https://portalseer.ufba.br/index.php/enfermagem/article/view/16814/14426>
27. Melnyk BM, Gallagher-Ford L, Zellefrow C, Tucker S, Thomas B, Sinnott LT, et al. The First U.S. Study on Nurses' Evidence-Based Practice Competencies Indicates Major Deficits That Threaten Healthcare Quality, Safety, and Patient Outcomes. *Worldviews Evid Based Nurs* [Internet]. 2018 [cited 2018 Aug 13]; 15(1):16-25. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/29278664>
28. Jang H, Lee NJ. Patient safety competency and educational needs of nursing educators in South Korea. *PLoS One* [Internet]. 2017 [cited 2018 Aug 13]; 12(9): e0183536. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/?term=Jang+H%2C+Lee+>

[NJ.+Patient+safety+competency+and+educational+needs+of+nursing+educators+in+South+Korea.](#)

29. Usher K, Woods C, Conway J, Lea J, Parker V, Barret F, et al. Patient Safety content and delivery in pre-registration nursing curricula: A national cross-sectional survey study. *Nurse Educ Today* [Internet]. 2018 [cited 2018 Aug 13]; 66:82-89. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/?term=Patient+Safety+content+and+delivery+in+preregistration+nursing+curricula%3A+A+national+crossectional+survey+study>.

30. Siman AG, Brito MJM. Mudanças na prática de enfermagem para melhorar a segurança do paciente. *Rev. Gaúcha Enferm.* [Internet]. 2016 [cited 2019 Feb 06]; 37(spe):e68271. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1983-14472016000500413&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472016000500413&lng=en)

31. Masters, Kelli. Integrating quality and safety education into clinical Nursing education through a dedicated education unit. *Nurse Educ Pract* [Internet]. 2016 [cited 2018 Aug 12]; 17:153-60. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/26777871>

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# Nursing Care for the old women in therapeutic residences

## Assistência de Enfermagem à idosas em residências terapêuticas

### Cuidados de enfermagem para las ancianas en residencias terapéuticas

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**How to cite:** Teixeira BT, Oliveira LP, Matias RS, Pereira JR, Carvalho RL, Sandim LS. A Nursing Care for the old Women in Therapeutic Residences. REVISA. 2021; 10(4): 670-83. Doi: <https://doi.org/10.36239/revisa.v10.n4.p670a683>

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Received: 12/07/2021  
Accepted: 19/09/2021

#### RESUMO

**Objetivo:** buscar na literatura científica dados para especificar as dificuldades encontradas pela equipe de enfermagem e ressaltar a importância da assistência de Enfermagem. **Método:** trata-se de revisão integrativa da literatura científica, utilizando como critérios de inclusão artigos publicados em português; textos completos e disponíveis nas bases de dados; e período estipulado de 1992 e 2021, priorizando a organização das ideias por ordem de importância e a síntese destas que visou a fixação das ideias essenciais para a solução do problema da pesquisa. **Resultados:** obtiveram-se informações relevantes sobre a inovação na perspectiva da saúde mental das idosas, assim como a criação do processo de ressocialização deste paciente que começa a instigar a necessidade de novas análises, reflexões e práticas de saúde. Discutiu-se então sobre o envelhecimento populacional e suas influências sobre a saúde mental dos idosos, a importância da reforma psiquiátrica em prol do fim dos manicômios e por fim a necessidade da constante melhora na assistência de enfermagem prestada a idosas em residências terapêuticas. **Conclusão:** é notória a escassez de materiais atualizados abordando o assunto proposto, sendo assim, é de extrema importância que sejam realizados estudos a respeito desta temática em prol de preparar melhor os profissionais e familiares para a institucionalização de idosas em residências terapêuticas.

**Descritores:** Enfermagem; Saúde do Idoso; Assistência à Saúde Mental.

#### ABSTRACT

**Objective:** to search the scientific literature on data to specify the difficulties encountered by the nursing team and to highlight the importance of nursing care. **Method:** this is an integrative review of the scientific literature, using as inclusion criteria articles published in Portuguese; full texts and available in the databases; and stipulated period of 1992 and 2021, prioritizing the organization of ideas in order of importance and the synthesis of these aimed at fixing the essential ideas for the solution of the research problem. **Results:** relevant information was obtained about innovation from the perspective of the mental health of the elderly women, as well as the creation of the process of resocialization of this patient that begins to instigate the need for new analyses, reflections and health practices. It was then discussed about the population aging and its influences on the mental health of the elderly, the importance of psychiatric reform in favor of the end of asylums and finally the need for constant improvement in nursing care provided to elderly women in therapeutic homes. **Conclusion:** it is notorious the scarcity of updated materials addressing the proposed subject, so it is extremely important that studies on this theme be conducted in order to better prepare professionals and family members for the institutionalization of elderly women in therapeutic residences.

**Descriptors:** Nursing; Health of the Elderly; Mental Health Assistance.

#### RESUMEN

**Objetivo:** buscar en la literatura científica los datos para especificar las dificultades encontradas por el equipo de enfermería y resaltar la importancia de los cuidados de enfermería. **Método:** se trata de una revisión integradora de la literatura científica, utilizando artículos de criterios de inclusión como publicados en portugués; textos completos y disponibles en las bases de datos; y período estipulado de 1992 y 2021, priorizando la organización de las ideas en orden de importancia y la síntesis de estas encaminadas a fijar las ideas esenciales para la solución del problema de investigación. **Resultados:** se obtuvo información relevante sobre la innovación desde la perspectiva de la salud mental de las ancianas, así como la creación del proceso de resocialización de esta paciente que comienza a instigar la necesidad de nuevos análisis, reflexiones y prácticas de salud. Luego se discutió sobre el envejecimiento de la población y sus influencias en la salud mental de los ancianos, la importancia de la reforma psiquiátrica a favor del fin de los asilos y, finalmente, la necesidad de una mejora constante en la atención de enfermería prestada a las mujeres mayores en hogares terapéuticos. **Conclusión:** es notorio la escasez de materiales actualizados que aborden el tema propuesto, por lo que es sumamente importante que se realicen estudios sobre este tema con el fin de preparar mejor a los profesionales y familiares para la institucionalización de las ancianas en residencias terapéuticas.

**Descriptores:** Enfermería; Salud del Anciano; Atención a la Salud Mental.



## Introduction

In recent years, population aging has become a worldwide phenomenon. This fact is due to the relationship between the significant reduction in birth and mortality rates combined with the constant increase in the population's life expectancy. However, the natural aging process brings with it a functional limitation for the individual, that is, it directly affects the ability to take care of oneself. In this process, there are numerous changes in social, cultural and family arrangements.<sup>1</sup>

The elderly brings to the family the need for help, both for daily activities and for the process of any pathology of which they may be a carrier. These needs make the family a demand for time to be devoted to the care of this elderly person. In these circumstances, they become too much responsibility for family members, thus generating a feeling of incapacity. This entire process leads the family to insert the elderly in therapeutic residence accommodation, especially in cases of elderly people with mental illnesses.<sup>2</sup>

These residences are houses, mostly intended for the care of elderly people with mental illnesses, resulting from psychiatric hospitalizations and that are generally ignored or do not have family support. Therapeutic residences are established through Ordinance No. 106/2000.<sup>3</sup> and were created with the main purpose of reducing the occupation of beds in psychiatric hospitals, offering them housing and health care.<sup>4</sup>

According to updates from the World Health Organization, about 450 million people have some type of mental disorder and need health care, and a large number need accommodation in therapeutic homes. That in addition to accommodating mental patients, they also play the role of reintegrating them into society. For its full functionality, a therapeutic residence needs the support of outpatient clinics specialized in mental health and family health and professionals such as nurses and nursing technicians trained in mental health.<sup>5</sup>

Throughout the so-called institutionalization process of the elderly, the nursing team is considered essential, as it develops direct activities related to the care process. Mainly in the reception of elderly women who are withdrawn and frustrated by having been abandoned by their relatives, especially by their own children. This process enables the organization of care directed to elderly women in an attempt to reduce the risk of physical dependence on them, in addition to enabling health determinants through the constant and continuous assessment of functional capacity, and by establishing some goals required in view of the elderly person's needs, individually.<sup>6</sup>

Since then, interest has been aroused in providing the institutionalized elderly in therapeutic residences with qualified assistance, so that this population could develop activities of daily living (ATV) with skill, according to the conditions exposed by each one. Thus, promoting their insertion in the social community and in their own residence, welcoming the resident in the totality of care, with a qualified multidisciplinary and interdisciplinary team. The interest only in the elderly is justified by the fact that they have more difficulty adapting to different places and the aging periods require more affection and attention, although the male elderly also deserve the affection and attention mentioned.

The challenge is to promote qualified professionals in mental health to meet the needs of therapeutic residences, as there is a shortage of specialized

professionals and the need to provide comprehensive and targeted care to residents for a holistic and interdisciplinary care.

In this context, the objective of the study was to search the scientific literature for data to specify the difficulties encountered by the nursing team and emphasize the importance of nursing care.

## **Method**

The integrative literature review consists of building a comprehensive analysis of the literature, contributing to discussions on research methods and results, as well as reflections on future studies. The initial purpose of this research method is to gain a deep understanding of a particular phenomenon based on previous studies. It is necessary to follow standards of methodological rigor, clarity in the presentation of results, so that the reader can identify the real characteristics of the studies included in the review. integrative in the health and nursing scenario.<sup>7</sup>

This is an integrative literature review, which allows the inference of questions about nursing care for elderly women in therapeutic homes.

To prepare a relevant integrative review that can support the implementation of effective interventions in patient care, it is necessary that the steps to be followed are clearly described. It is necessary to follow standards of methodological rigor, clarity in the presentation of results, so that the reader can identify the real characteristics of the studies included in the review.<sup>8</sup>

The integrative literature review aimed to offer research results in a guiding question, through a systematization and ordering of research, which can help to understand how the literature has referred to nursing care for elderly women residing in therapeutic homes.

### **Formulation of the guiding question**

What are the difficulties faced by the Nursing team in caring for the elderly in therapeutic residences?

### **Literature search**

After defining the theme, a search was made in virtual health databases, along with the database through electronic search of scientific articles indexed in the database: Repositories, Scielo (Scientific Electronic Library Online), Lilacs (Latin Literature American and Caribbean in Health Sciences), Electronic journals and periodicals. Ministry of Health and books were also used as a source. The descriptors defined for the search were: elderly women, institutionalization, asylums, nursing, therapeutic residences.

### **Criteria for selection and analysis of articles**

In order to answer the guiding question, a literary search was carried out and from the 299 references obtained, the exploratory reading and selection of material was carried out, through the reading of the selected works, which



enabled the organization of ideas in order of importance and the synthesis of these that aimed to fix the essential ideas for the solution of the research problem. Thus, publications will be used between January 1992 and May 2021, which have information relevant to the topic, and outdated materials or with redundant information will be discarded, all that fit will be necessary for the construction of the work, written in Portuguese and English.

The materials included in the article obtained information relevant to the topic, stipulating the quantity and quality of knowledge included between the lines. In addition to being complete texts with relevant information about nursing care for elderly women in therapeutic homes. Dated with recent years of research, updated study, with clarity and effectiveness in its quality as a basis for this work.

Outdated materials dated between 1905 and 1992 and/or with information that were not accurate in the information were excluded. Articles written in foreign languages that did not fit the basis of this study were also discarded. Innovations on the subject were sought.

### **Interpretation of included results**

The method of detailed analysis of the content found was used, complying with the inclusion criteria with previous reading of titles and abstracts of the works found, as well as other information contained in all materials.

The exclusion criteria were based on not using outdated content despite the scarcity of published material on the subject.

### **Representation of articles**

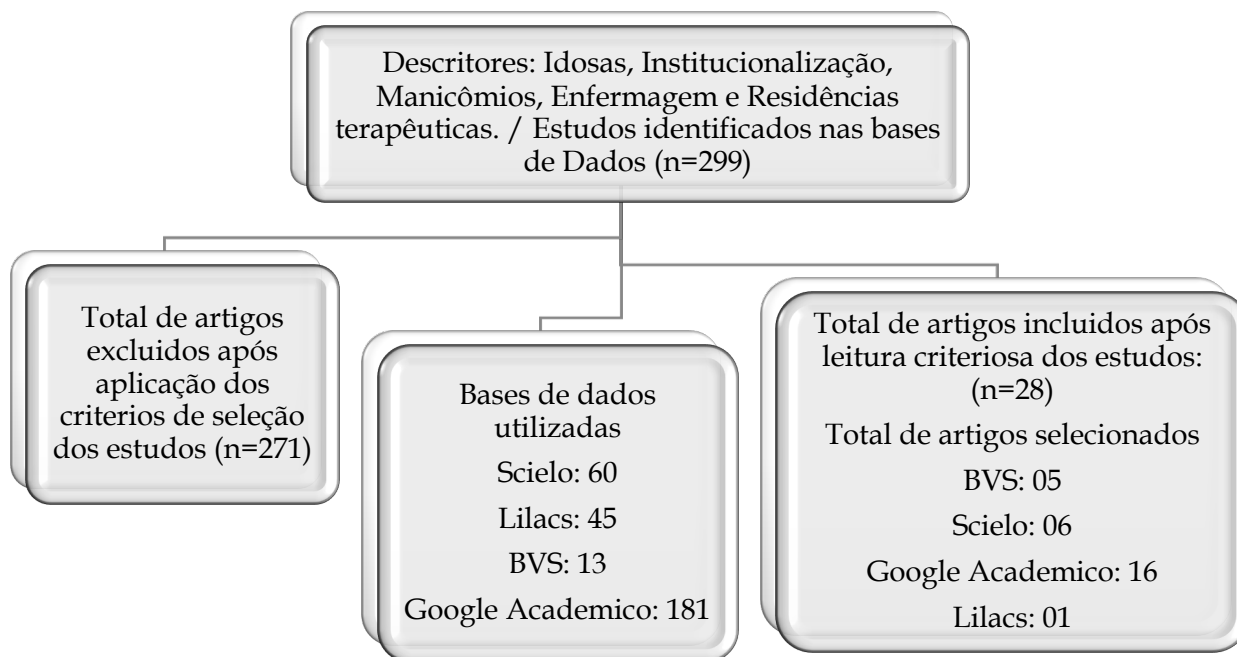
The data obtained through the integrative review were analyzed and separated into categories such as: introduction to aging; institutionalization of elderly women with a retrospective of psychiatry and its advances since the end of the "insane asylums"; introduction to therapeutic residences and difficulties encountered by nursing in providing adequate care to these elderly women. This division is based on the function of guiding the reader to recognize the real objective of this study amidst the events.

### **Data grouping**

After collecting data, carefully reading the information contained in the selected materials, the important data considered relevant within the context discussed were gradually grouped, starting with the introduction of aging considered a natural cause of senility and diseases acquired throughout life. As the human organism ages, it ends up losing its capabilities and decreasing its functions, thus generating pathologies mainly associated with factors to which the individual has been exposed throughout life. Mental illness is one of them and allied to it are the institutions of therapeutic residences, the second stage mentioned during the construction of the study.

The institutionalization of elderly women and the nursing care they receive in therapeutic homes in view of their needs is the main survey of this study

**Figure 1-** Flowchart with inclusion and exclusion criteria.2021.



## Results

Of the articles found, only 08 contained information about the difficulties faced by nursing in providing assistance and care to elderly women in therapeutic homes, 10 reported on natural aging and its impacts on the individual's health, and the other 11 refer to the history of institutionalization elderly women and therapeutic residences. So, we'll look at the selected content below.

Previously, the hospitalization process of elderly women in psychiatric hospitals was surrounded by mysteries about the treatments performed, the type of care provided, however, everything was resolved and exposed clearly when the media disclosed the reality of daily life in these hospitals, demonstrating horror situations, with shocks, torture, abuse, hunger, among others.

Currently, these units have been institutionalized as therapeutic residences and receive elderly women with mental illnesses, house about eight patients as a family and now have adequate multidisciplinary care to improve the health and quality of life of elderly residents.

From this innovation in the mental health perspective of elderly women, the process of resocialization of this patient begins to instigate the need for new analyses, reflections and health practices. In addition to the notorious lack of training of health professionals to act in this new model of mental health care, as proposed by the aforementioned Psychiatric Reform, it is extremely important that nurses build actions with a new position, displacing it from the already assigned and assumed from watchman and repressor, to a new position of therapeutic agent. Such modification implies a care that goes beyond welcoming the patient with guarantees of food, clothing and medication.<sup>9</sup>

In an attempt to minimize the fact that the patient feels alone or abandoned by the family, as in some cases, nursing must always be present and welcoming in a way that gives the patient the proper trust and credibility in their interest in it, that it is just to hear stories that other people are not willing to hear.

In addition to the assistance provided to the elderly in their pathologies and daily needs, evolutions in the activities performed by them, control of emotions and stunning feelings.

Thus, it is notorious that nursing care aimed at elderly women in mental health is based on the Psychiatric Reform and seeks to offer the psychiatric patient mainly adequate care and treatment based on the precepts of humanization, as well as guiding the nursing care offered in the systematization nursing care, guaranteeing the elderly more effective and quality care.

## Discussion

### Aging

A study on aging highlights that it is a phenomenon that is growing globally. The number of elderly women increases at a significantly faster rate than the number of births, causing constant changes in society in all its aspects (social, economic and political). Brazil had approximately 26 million people aged 60 years or more, representing 14% of the population, while in 2004 this proportion was limited to 9.7%. However, this growth implies deep social pressures, especially in the health system, generating high-cost medical treatments, the need for training of caregivers and social security support.<sup>10</sup>

Neuropsychological mental illnesses bring a greater degree of disability and dependence to the individual, visibly compromising their quality of life. Among the main diseases of this group, the most common are depression and common mental disorders, presenting symptoms such as anxiety, insomnia, forgetfulness, somatic complaints, associated with negative impacts on the life of the elderly.<sup>11</sup>

According to the World Health Organization (WHO), about 450 million people worldwide have some type of mental disorder. Brazil is one of those with high numbers of mental illnesses, especially in adolescents and the elderly, with a percentage ranging from 20% to 56%. In the elderly, the most common are anxiety, depression and mood disorders.<sup>5</sup>

The individual who ages in this way suffers a double exclusion. One because of being chronically mentally ill and another because they are old, exclusions that do not have the same standards. These old people also classified as mentally ill, unlike those who get older in society, are permanently absent from social discourses and political movements in favor of the rights of the elderly. Therefore, they do not know what "third age" is, nor what healthy aging is. They don't travel, don't vote and don't go to gyms. As such, it is not a good calling card for the success of old-age policies. In turn, the psychiatric reform, with the consequent deinstitutionalization, does not take them as a model either. As they have lived almost all their lives in asylum, they have little chance of being fully reinserted in society, which, due among other things to "ageism", no longer excels in welcoming the elderly in general, let alone elderly people with mental disorders chronic. Your relatives, neighbors, friends, colleagues have already

forgotten you or are dead. Many of these seniors no longer have anyone to turn to. They are forgotten. The double exclusion that these patients undergo is reflected in the scarcity of studies in the area. The specific element capable of making the psychiatric institution a place of care beyond an asylum, beyond a shelter, is precisely the production of knowledge associated with practice, or a practice inseparable from the construction of a theory related to it. A permanent theoretical reflection, elaborated in the daily life of a practice.<sup>12,13</sup>

Soon, family members began to opt for the institutionalization of elderly women with mental illnesses in psychiatric hospitals, which would be institutionalized in the future and called therapeutic residences to obtain the assistance and care necessary for their better quality of life.<sup>10</sup>

Accordingly, it is addressed that therapeutic residential services, in turn, have been the object of quantitative study, both to know the operating characteristics and the profile of their clientele in general, and to verify the effectiveness of a given program through the application of an international use scale in the population assisted by it.<sup>14,15</sup>

There are few qualitative works dedicated to directly studying the SRT population, but it has brought in many ways material of great importance. For example, based on interviews with residents, to determine how the reconstruction of their contractual power takes place, that is, in anthropological language, their ability to establish relations of reciprocity and solidarity.<sup>16</sup>

However, through the analysis of the entire work of a service, highlight the role of leisure in the process of recovering dignity, autonomy and joy of living. Ethnographies, in turn, are rare, and aim to understand how the residents of the SRT reconstruct their identity, but they do not specifically assess the elderly who live there.<sup>17-18</sup>

## **Psychiatric Elderly and Institutionalization**

The recent history of these institutions in Brazil, or mental health services, can be divided into three moments. The first, from its origins to 1950, is characterized. Due to the predominance of institutions aimed at the removal and confinement of patients, be they general hospitals, nursing homes and agricultural colonies, always following the logic of social exclusion of people diagnosed as mentally ill or elderly people unable to care for themselves through their confinement in these establishments. The second, from the 1950s to the 1980s, is characterized by the beginning of movements aimed at the deinstitutionalization of mental health care and the decline of asylum as a therapeutic strategy, based on the post-war social context and the emergence of neuroleptics in the arsenal therapeutic. What is conventionally called the Psychiatric Reform corresponds to this second period and the three pillars on which it is based are the decrease in hospital admissions by closing psychiatric beds and hospitals and the provision of community services, the de-hospitalization of patients in long-stay hospitals, after proper preparation, and the creation and maintenance of a network of services to substitute asylum in order to serve them.<sup>19</sup>

The reform is still ongoing and if in the 1960s and 1970s, the focus of treatment was on symptom control in order to help patients remain asymptomatic outside the hospital, the most recent actions aim at adapting the

patient to life outside the hospital. asylum and encouraging the creation of day care centers, CAPS, NAPS e SRT.

Thus, the third period, which started in the 1980s, has as its main characteristic the emphasis on community care and the balance between promotion and mental health care strategies, as attention turns to rehabilitation, with the purpose of to help the patient to reintegrate into society, with employment and housing, giving him independence, autonomy and quality of life. Thus, the construction of an appropriate physical and symbolic space, together with the constitution of a social network of protection and belonging, enters into the context of treatment and rehabilitation of patients with chronic mental disorders. They become fundamental actors and an integral part of psychiatric care to be developed in the new houses of the history of Psychiatry, the therapeutic residences. The Therapeutic Residences or Therapeutic Residential Services (SRT), according to Ordinance No. 106 of February 11, 2000,<sup>3</sup> are defined as dwellings or houses inserted, preferably, in the community.<sup>20</sup>

Studies report that in the past, patients with mental disorders or illnesses, mainly elderly, were admitted to psychiatric hospitals called asylums. However, the media revealed the secrets of the place and the real treatment intended for the elderly, the elderly were harassed and mistreated, victims of violence, shock, used as a justification for the rage and illness presented by the patients. After this exposure of the media about the reality of the facts, the family members started not to approve the hospitalizations and the SUS started to fight for a kind of psychiatric reform in favor of improvements in the quality of care and even the extinction of the asylums. The first reported movements in relation to Brazilian psychiatric care emerged in the mid-1970s, when scenarios of neglect and violence with patients were exposed, the need for institutionalization becoming marked.<sup>21</sup>

After several themed conferences in favor of a society without asylums. During the II National Conference on Mental Health, in December 1992, he highlighted the strategic importance of implementing the so-called "sheltered homes" for the restructuring and reorganization of mental health care in the country. Years later, they came to be called "sheltered homes" therapeutic residences, constituting housing alternatives for elderly women with mental disorders who have been hospitalized for years in old psychiatric hospitals because they do not have adequate support from the family and the community.<sup>22</sup>

### **Therapeutic Residences**

Welcoming elderly women is carried out in a humane way and defended by a policy based on the enactment of Federal Law 10.216, of April 6, 2001, which provides references on the protection and rights of individuals with mental disorders and restructures the health care model in the country. Another process to be carried out with the elderly is their resocialization, which starts with group and individual activities, motivating them to express their feelings, desires, fear, insecurity, doubts about the routines of a house, going out by city its characteristics and personal preferences.<sup>23</sup>

This need for attention, care and especially help to perform their simple tasks required by the elderly, leads family members to leave them in therapeutic

homes. The Therapeutic Residential Services (RTS) are characterized as a housing alternative, inserted in the community, aiming to accommodate patients with mental disorders, usually discharged from long-term psychiatric hospitalizations who do not have or are rejected for what should be family support. These are houses located in the urban space, implemented in order to respond to the housing needs of these people. The Ministry of Health made this service official through Ordinance 106/2000.<sup>3</sup> as a service provided by the Unified Health System (SUS), to supply these “resident patients” whether in public or private psychiatric hospitals in Brazil. And in 2011, Ordinance 3090, provided references on the transfer of financial resources for the proper and complete functioning of the SRTs.<sup>24-25</sup>

This same ordinance, when defending the creation of therapeutic residences, established characteristics necessary for the complete functioning of this service, highlighting: The physical and functional characteristics of the Therapeutic Residences, the financial resources necessary for the implementation of the service, the multidisciplinary team that will act in assistance to people with mental disorders, in addition to the principles and guidelines of the Therapeutic Project that will be developed.<sup>23</sup>

Regarding the physical and functional characteristics necessary for the operation of Therapeutic Homes, each house must be properly inserted in different neighborhoods of the city, that is, in full contact with the community. It must house a maximum of eight patients, it must be furnished with equipment that meet the needs during household activities such as personal hygiene, food preparation, cleaning and washing clothes, among others, have two to four bedrooms and offer at least three meals a day. Financial maintenance comes from the budgetary resources of the municipality that implements the service.

According to Ordinance 175/2001, which amends article 7 of Ordinance 106/2000, “the Therapeutic Residence must be linked to outpatient services specialized in mental health, such as the Psychosocial Care Centers” (p. 23), in addition to counting on a minimal team responsible for monitoring and assisting the residents, composed mainly of a medical professional and two professionals with high school education and mental health training, a nurse with experience in psychosocial rehabilitation.<sup>21,26</sup>

The nursing professional is extremely important in the care provided to institutionalized elderly women, from their reception to their daily stay, ensuring an improvement in their quality of life in addition to providing the necessary care for each individual who lives in the therapeutic residence.<sup>22</sup>

### **Nursing care for elderly women in therapeutic residences**

The nursing care provided to elderly women living in therapeutic residences is complex, as it must be linked to knowledge actions in gerontology and especially in mental health. Assistance is aimed at expanding their autonomy and capacity for self-care; in addition to promoting their cognitive functions and recovering their citizen status. Therefore, these institutions develop different and varied therapeutic and social activities, such as workshops, social inclusion tours, museum visits and interactive trips.<sup>27</sup>

One of the great difficulties in nursing care provided to elderly women in therapeutic homes is the lack of specific knowledge in the practice of elderly care.

Generating insecurity for both professionals and patients themselves. This lack of knowledge is often justified by the scarcity of information processes that refer professionals.<sup>28</sup>

Also according to the aforementioned author, another difficulty is the lack of a support network, such as the lack of preparation to deal with the patient's death, lack of resources, materials, finances and social isolation. In addition to the exhausting emotional and physical day-to-day burdens for both parties. If health institutions offered nursing professionals and family members support groups in order to share some of their experiences and feelings, perhaps it could contribute to reducing emotional suffering and improving the care provided by professionals and the understanding of family members about the situation of patients. In addition to opportunities for technological updates, specialization and improvement of professionals.

As for references in nursing care provided to elderly women in therapeutic homes, there is a notable lack and scarcity of studies addressing this issue, thus justifying the use of a small number of materials for the construction of this study. During the research and analysis of the materials, only eight studies were found with an emphasis on nursing care (tab.1).

**Table 1-** Articles with references to nursing care provided to elderly women in therapeutic homes.2021.

Study	Article title	Year	Kind of study	Considerations
1	Therapeutic residencies and public mental health policies	2016	Study based on literature review.	The article investigates how Therapeutic Residences contribute to the insertion of individuals with mental disorders in the community context to which they belong.
2	Therapeutic residences: what they are, what they are for	2004	Comparative study between different dates and updates in the history of psychiatry and nursing care.	It is a booklet with information about the phases of psychiatry, as well as the evolution of nursing care and its difficulties in implementing it in therapeutic residences.
3	Therapeutic residential services: the power of contractuality and the psychosocial rehabilitation process.	2006	Integrative review study, descriptive of qualitative nature.	The article analyzes the nursing care services for the rehabilitation of institutionalized elderly people.
4	Therapeutic residential services in the state of Rio de Janeiro: an initial diagnosis.	2004	Descriptive, cross-sectional study, based on information from managers of SRTs.	A study refers to the Psychiatric Reform in Brazil has as one of its pillars the proposal of deinstitutionalization and the power of nursing.
5	Integrative review: research method for incorporating	2008	Qualitative integrative review study.	The study is based on evidence-based practice is an approach that



	evidence in health and nursing.			encourages the development and/or use of research results in clinical practice..
6	Nursing diagnosis of residents of therapeutic residences in the light of the theory of basic human needs.	2016	Study with integrative review, cross-sectional census sample.	The study refers to the need for nursing care, focused on comprehensive care for people with mental disorders, understood in its biological, psychological, social and spiritual aspects, through systematic nursing care.
7	The difficulties of nursing care with elderly patients in palliative care - integrative review.	2021	This is an integrative literature review with a quantitative basis.	The study describes the difficulties of palliative nursing care for elderly patients according to the scientific literature.
8	Nursing interventions for aging elderly in psychiatric institutions: cross mapping.	2016	This is a cross-mapped documentary research with an intentional sample.	The study performed the cross-mapping of terms in the Nursing language with the Nursing Interventions Classification system, in medical records of elderly people with psychiatric disorders.

## Conclusion

This study allowed us to verify that one of the best forms of care for elderly patients in therapeutic residences together with the nursing team, when dealing, for example, with the finiteness of care, in the work environment, which are strengthened by actions of the possibility of survival, although deaths occur at one time or another. It also demonstrates the professionals' lack of experience, the feelings experienced throughout the process, and especially the lack of emotional support from the health institution where they work. It was also observed that the communication and interaction of the nursing team with the family must always remain open, as there is a constant need to inform, guide and understand the entire process experienced by both. In this sense, it is important to reflect directly on the planning of actions that favor the understanding of family members and the care directed towards the elderly.

However, the scarcity of updated materials addressing the proposed subject is notorious, so it is extremely important that studies are carried out on this theme in order to better prepare professionals and families for the institutionalization of elderly women in therapeutic residences.

## Acknowledgment

This research did not receive funding for its completion.

## References

1. Menezes JNR, Monte CM, Silva IA, et al. A visão do idoso sobre o seu processo de envelhecimento. *Revista Contexto e Saúde*, 2018,18(35):8-12. DOI: 10.21527/2176-7114.2018.35.8-12.
2. Miranda JL. O abandono inverso em relação aos idosos e a responsabilização civil da família. 2020. Monografia (Graduação em direito) - Universidade do Sul de Santa Catarina, Araranguá, p. 61.
3. Ministério da Saúde (BR). Portaria nº 106 de 11 de fevereiro de 2000. Gabinete do ministério.
4. França VV, Alves MP, Silva ALMA, Guedes TG, Frazão IS, et al. Quem são os moradores de residências terapêuticas? Perfil de usuários portadores de transtornos mentais desinstitucionalizações. *Revista Saúde em debate*, 2017, v. 41, p. 872-884.
5. Manfredi P. Perfil de saúde de sujeitos residentes em instituições terapêuticas. 2019. Dissertação (Pós-graduação em envelhecimento humano) - Universidade de Passo Fundo.
6. Pimenta, CS, Souza KF, Silva LSR, Vimieiro JP, Jardim ALS, Leopoldino IPS, et al. A institucionalização do idoso e a insuficiência familiar: uma análise sobre o impacto para a qualidade de vida do idoso em uma instituição de longa permanência de belo horizonte, minas gerais. *Anais do 13º Congresso Internacional da Rede Unida v. 4, Suplemento 1 (2018).: Saúde em Redes Suplemento, Anais do 13ª Congresso Internacional da Rede UNIDA.*
7. Mendes, KDS, Silveira, RCCP, Galvão, CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto Contexto Enferm*, 2008, v. 17, n. 4, p. 758-764.
8. Beyea, SC, Nicoll, LH. Writing an integrative review. *AORN J*. 1998 Apr; 67, p. 877-80.
9. Pereira, MAS. Diagnósticos de enfermagem de moradores de residências terapêuticas á luz da teoria das necessidades humanas básicas. 2016. Dissertação (Pós em enfermagem)- Universidade Federal de Pernambuco, 105p
10. Moreira, JC. Qualidade de vida de idosas residentes em instituições de longa permanência no município de Belo Horizonte. 2017. Dissertação (pós graduação em promoção da saúde e saúde e prevenção)-Faculdade de medicina da Universidade de Belo Horizonte.
11. Cordeiro, RC, Santos RC, Araújo GKN, Nascimento NM, Souto, RQ, Ceballos, AGC, et al. Perfil de saúde mental de idosos comunitários: um estudo transversal. *Revista Brasileira de Enfermagem*, 2018, v. 73, p. 1-8.
12. Cavalcanti, MTA. Tear das cinzas. Um estudo sobre as relações entre psicose e instituição psiquiátrica. 1992-335f. Dissertação (mestrado), Instituto de psiquiatria, Universidade Federal do Rio de Janeiro, 1992.

13. Cavalcanti, MTA. Trama de tear. Sobre o tratar em psiquiatria. 1997. 288f. Tese (doutorado). Instituto de psiquiatria, Universidade Federal do Rio de Janeiro, 1997.
14. Lobo MCCA. Serviços residenciais terapêuticos no estado do Rio de Janeiro: um diagnóstico inicial. 2004. 109f. Dissertação (Mestrado). Escola Nacional de Saúde Pública, Fiocruz, Rio de Janeiro. 2004.
15. Silva, ORF. Desinstitucionalização da assistência psiquiátrica: avaliação de resultados de uma experiência de dispositivos residenciais comunitários. 2005. 159f. Tese (doutorado). Escola Nacional de Saúde Pública, FIOCRUZ, Rio de Janeiro, 2005.
16. Fonseca AMS. Serviços residenciais terapêuticos: o poder de contratualidade e o processo de reabilitação psicossocial. 2006. 179f. Dissertação (Mestrado) Programa integrado de pós graduação em saúde coletiva, departamento de medicina social, centro de ciências e saúde, Universidade Federal de Pernambuco, 2006.
17. Aquino MMB. Lazer e reforma psiquiátrica: o clube de lazer e cidadania. Colônia, um estudo de caso. 2006, 121 p. Dissertação (Mestrado) Instituto de psiquiatria, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 2006.
18. Milagres ALD. Porta de saída do asilo cotidiano, narrativa e subjetividade nas residências terapêuticas do IMAS Juliano Moreira. 2002. 177f Dissertação (Mestrado) Programa de pós graduação em ciências sociais. Universidade do Estado do Rio de Janeiro, Rio de Janeiro. 2002.
19. Acosta-Orjuela GM. O Uso da Televisão Como Fonte de Informação Sobre a Velhice: Fatos e Implicações. In: NERI, A.L.; DEBERT, G.G. (Org.). Velhice e Sociedade. Campinas: Papirus, 1999. p. 179-222.
20. Albuquerque P. Apresentação. Cadernos do IPUB, 2006, v. 12, p. 9-14.
21. Amarante O, Nunes MO. A reforma psiquiátrica do SUS e a luta por uma sociedade sem manicômios. Revista Saúde Coletiva, 2018, v. 23, p. 15-25.
22. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Ações Programáticas Estratégicas. Residências terapêuticas: o que são, para que servem / Ministério da Saúde, Secretaria de Atenção à Saúde, Departamento de Ações Programáticas Estratégicas. – Brasília: Ministério da Saúde, 2004.
23. Almeida FA, Cézar AT. As residências terapêuticas e as políticas públicas de saúde mental. Revista IGT na Rede, 2016, v. 13, p. 105-114.
24. Ministério da Saúde (BR). Portaria nº 3.090, de 23 de dezembro de 2011(\*). Altera a Portaria nº 106/GM/MS, de 11 de fevereiro de 2000. Gabinete do ministério. Disponível em:< Ministério da Saúde (saude.gov.br). acesso em: 14 de maio de 2021.
25. Klein CY, Boeckel TPV, Martinez EM, Suraj C, Gandra S, Levin AS, et al. Global increase and geographic convergence in antibiotic consumption between 2000 and 2015. Proceeding of the national

academy of sciences of the united states of american, 2018, v, 26, p. 1-19.

26. Ministério da Saúde (BR). Portaria nº 175, de 7 de fevereiro de 2001. Gabinete do ministério. Disponível em:<175.pdf (ufba.br)>.

27. Silva TG, Santana RF, Souza PA. Intervenções de Enfermagem para idosos que envelheceram em instituições psiquiátricas: mapeamento cruzado. Rev. Eletr. Enf, 2016, v. 18, p. 1-15.

28. Santos RRP, Cardoso BP, Pereira MC. As dificuldades da assistência de enfermagem com o paciente idoso em cuidados paliativos- Revisão integrativa. REVISA, 2021, v.10, p. 240-249. Doi: <https://doi.org/10.36239/revisa.v10.n2.p240a249>

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# Measures of prevention and control of infection associated with the use of venous catheter peripheral and central

## Medidas de prevenção e controle de infecção associadas ao uso de cateter venoso periférico e central

## Medidas de prevención y control de infecciones asociadas con el uso de catéter venoso periférico y central

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**How to cite:** Pinto KCO, Souza PR, Oliveira TC. Measures of prevention and control of infection associated with the use of venous catheter peripheral and central. REVISA. 2021; 10(4): 684-96. Doi: <https://doi.org/10.36239/revisa.v10.n4.p684a696>

# REVISA

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Received: 22/07/2021  
Accepted: 29/09/2021

### RESUMO

**Objetivo:** Analisar os fatores de risco que causam infecções nos cateteres, bem como permear a ação do profissional de enfermagem e sua efetividade no controle preventivo. **Método:** Trata-se de pesquisa básica; descritiva e bibliográfica quanto aos procedimentos de coleta de dados. **Resultados:** Através das informações coletados dos mais de 40 artigos selecionados, se fez nítida a negligência de forma expressiva e acelerada nas punções em ambientes hospitalares e na assistência ofertada aos profissionais de enfermagem. Neste sentido com prevenção e promoção apropriada, seria possível promover de forma adequada à qualificação destes procedimentos, diminuindo os riscos de infecção no ambiente hospitalar. **Conclusão:** A utilização destes dispositivos, por vezes, torna-se imprescindível no tratamento por curtos ou longos período, entretanto os riscos da utilização destes equipamentos de forma imprudente ocasionam enfermidades persistentes e nocivas. Por isso a participação do enfermeiro se faz necessário como agente minimizador de riscos, tendo suma importância na manutenção da qualidade assistencial para o paciente, uma vez que esses profissionais precisam basear suas ações de cuidados em evidências científicas comprovadas.

**Descritores:** Cateter Central. Cateter Periférico; Fatores de Risco; Microrganismos Infecciosos; Cuidados de Enfermagem.

### ABSTRACT

**Objective:** To analyze the risk factors that cause catheter infections, as well as to permeate the action of nursing professionals and their effectiveness in preventive control. **Method:** This is a basic research; descriptive and bibliographic as to data collection procedures. **Results:** Through the information collected from more than 40 selected articles, it became clear the negligence in an expressive and accelerated way in punctures in hospital environments and in the assistance offered to nursing professionals. In this sense, with appropriate prevention and promotion, it would be possible to adequately promote the qualification of these procedures, reducing the risks of infection in the hospital environment. **Conclusion:** The use of these devices, sometimes, becomes indispensable in the treatment for short or long periods, however the risks of using this equipment in an imprudent way cause persistent and harmful diseases. Therefore, the nurse's participation is necessary as a risk minimizer agent, with paramount importance in maintaining quality care for the patient since these professionals need to base their care actions on proven scientific evidence.

**Descriptors:** Central Catheter; Peripheral Catheter; Risk Factors

### RESUMEN

**Objetivo:** Analizar los factores de riesgo que provocan cambios en los catéteres, así como permear la acción del profesional de enfermería y su efectividad en el control preventivo. **Método:** esta es una investigación básica; procedimientos de recogida de datos descriptivos y bibliográficos. **Resultados:** A través de la información recolectada de los más de 40 artículos seleccionados, se evidenció el descuido de la forma expresiva y acelerada de los pinchazos en los ambientes hospitalarios y en la atención brindada a los profesionales de enfermería. En este sentido, con una adecuada prevención y promoción, sería posible promover una forma adecuada para la calificación de estos procedimientos, reduciendo los riesgos de infección en el entorno hospitalario. **Conclusión:** El uso de estos dispositivos, en ocasiones, se vuelve imprescindible en el tratamiento por periodos cortos o largos, aunque los riesgos de utilizar este equipo de forma imprudente provocan enfermedades persistentes y nocivas. Por ello, la participación del enfermero es necesaria como agente minimizador de riesgos, teniendo una importancia primordial en el mantenimiento de la calidad de la atención al paciente, ya que estos profesionales necesitan sus acciones asistenciales en evidencia científica contrastada.

**Descriptores:** Catéter central. Catéter periférico; Factores de riesgo; Microorganismos infecciosos; Cuidado de enfermera.

REVIEW

## Introduction

From the health perspective, the control of nosocomial infections is one of the main challenges in health care, in addition to integrating the picture of complications of the high mortality rate, they also make up the picture of deficiency in the control of procedures such as handling and hygiene.<sup>1</sup>

In the health system, the sector of epidemiological control and nosocomial infections are essential sectors for the control of the main infections that cause serious problems among inpatients.<sup>2</sup>

Discussions around the terms of infections and treatments are frequent, and the opinion of most authors corroborates the great concern about the consonance of these themes, but regardless of a deeper conception, these designs consider the patient as a temporal, relational existence and potential that is instituted throughout life and in relationships with others and the environment.<sup>3</sup>

The issues that are legitimately linked to human life, should prioritize the study of altruistic issues, and it is imperative to highlight aspects that are related to new techniques and methodologies that drastically reduce the deaths caused by infections caused by the human factor and incoherent handling of catheters.<sup>4</sup>

It is necessary to establish the really effective guidelines for the correct verification of hand hygiene, insertion sites, asepsis technique and antimicrobials that are related to the issues under analysis, in a linear manner and independent of the terms to be legitimized by the sanitary control.<sup>5</sup>

The new responsibilities arise, as we become more aware of the importance of the role of nursing as an ethical requirement in the promotion of the common good, and for that, it cannot be denied that science is a great ally for human survival and quality of life. life in society.<sup>4</sup>

There are several problems in the health system in Brazil, seen and evidenced widely by episodes in the public domain such as the lack of beds, the scarcity of economic, material and professional resources. Given this parameter, we will focus our research on the main parameters of infection control and list the main preventive measures in the use of central and peripheral catheters.<sup>6</sup>

A well-targeted and efficient infection follow-up and monitoring program should aim to improve the individual's physical and psychological capacity, enabling the reduction of physical sequelae and the functioning of the organs as a whole. A multidisciplinary team is needed to assess the techniques to be adopted, as each individual has distinct and individualized effects.<sup>7</sup>

At first we will focus on the aspects of guidance of nursing teams for all those involved in the processes on the use of catheters in a cumulative way and possible acquired pathologies, in order to decrease the time of orotracheal intubation, invasive and non-invasive mechanical ventilation, less number of complications, infections and shorter hospital stay.<sup>8</sup>

Given these parameters, the objective of our research project is centered on preventive factors against infections in patients using central and peripheral venous catheters in the hospital environment, in addition to listing the main safety measures for the effectiveness in the quality of health services.<sup>9</sup>

Based on the theories that will be emphasized, the relevance of this work is perceived, as well as its impact on the quality of life of the population served, as infection control is a public health need.<sup>10</sup>

The relationships relevant to health issues and the control/prevention of infections caused by the incorrect and negligent handling of devices such as the catheter, are considered an object of study aimed at multi-care demands. Considering that the nursing professional seeks to promote health, it is necessary to look at the inclusion of the population in relation to services and public infection control policies, since these services exist to, at a minimum, guarantee access and rights to more citizens. vulnerable.

Due to the risks associated with incorrect handling and unhealthy techniques used for insertion of both central and peripheral catheters. Based on this finding, the objective of this article was to analyze the risk factors that cause infections in catheters, as well as permeate the action of the nursing professional and its effectiveness in preventive control.

## Method

This is basic nature research; descriptive and exploratory as to general objectives and bibliographic as to data collection procedures. This study was carried out through research in scientific articles published from the year 2000 onwards. Parameters are articles and theses published in sources such as: Scielo, PubMed / MedLine, Cochrane Library, Bank of Theses and Dissertations, in addition to articles from non-indexed journals. and textbooks.

About 80 articles were cataloged with subjects and standards pertinent to the selected theme, and they were analyzed through the outline of steps such as: definition of the theme, elaboration of the main questions pertinent to the research. After evaluating these requirements and qualitative analysis of the articles, about 40 articles were selected according to standards described by the Interdisciplinary Research Center (CIR), which considered the inclusion parameters (materials that intensified the importance of promoting and preventing the risk of infections in the use erroneous and negligent of invasive devices) and exclusion (articles without scientific origin) of the research and interpretation, in order to obtain information on each topic, in addition to reporting the importance of the nursing professional in managing prevention measures. With this assistance, results were elaborated that would contribute to possible reflections on the importance that this research aimed to accomplish.

## Results and Discussion

Through the information collected from the more than 40 selected articles, the negligence was clearly expressed in an accelerated way in the punctures in hospital environments and in the assistance offered to nursing professionals. Most cases occur disproportionately to economic management and assistance monitoring, mainly due to the failure of managers in these departments. Thus, these factors reflect on the quality of care, thus contributing to the increase in cases of diseases and sequelae.



In this sense, with appropriate prevention and promotion, it would be possible to promote adequately the qualification of these procedures, reducing the proportions of comorbidities and mortality and thus contributing to the improvement in the patients' quality of life. The use of techniques for the evaluation of the management and quality sectors makes it possible to encompass all the processes of health-disease assessment and promoting health surveillance in these sectors.

However, the great difficulty for this therapeutic intervention, takes into account that the habits of the vast majority of professionals, have rules previously quantified and performed incoherently, so all these factors must be well investigated through health monitoring, thus promoting a feeling of well being. -being and a better result in assisting patients and professionals involved.

The pathologies often resulting from the wrong process in the insertion of the catheters, direct the deficiency in a negative way between the association between health and disease and the development of well-known diseases in these phases, thus responding equally to the treatments in which it is directed.

The physiological factors contribute considerably to these risks of infections, thus causing a probable deficiency in the treatments, which, when it becomes chronic, ends up generating contamination by pathological and extremely harmful agents. This exponential increase shows that public health policies and the lack of qualification of health professionals expose the need for training and constant updates so that the assistance provided to this public can be carried out with differentiated conduct and techniques.

### **Venous catheter: central and peripheral**

During seventeenth-century research, studies that sought to unravel the physiology of blood vessels allowed medical interventions such as procedures that would make blood transfusions and treatments of patients in care therapy feasible. From the techniques that allowed the performance of punctures, it was possible through a flexible guidewire to introduce the insertion of catheters by puncture for the therapeutic purpose, thus being able to contribute to the maintenance of a patient at risk of life.<sup>11</sup>

Currently procedures that use the use of venous access devices have become indispensable for diagnosis and treatment, but despite the great benefit these procedures have a paradox, which is the risk of local and systemic infection associated with the use and handling, use of multiple lumens, severity of the disease, among others, which ends up causing a large number of comorbidities and mortality.<sup>12</sup>

Among the catheters that we will focus on in our research are the central venous catheter (CVC) and the peripheral venous catheter (CVP), which allow from medication administration to parenteral nutrition. The central venous catheters (figure 1), consist of accesses whose end is positioned in a large caliber vein and are used for the infusion of medication, nutrition and hemodialysis directly into the bloodstream, in addition to being a resource for blood collection.<sup>13</sup>



### Central Venous Catheter

Source: UNIDERP, 2010.

This procedure is used for short to long term treatments, which can be venous or arterial, by puncture or dissection, implantable or not, and are produced in PVC, polyethylene, polyurethane, teflon, silicone or silicone. Such procedure must be performed by qualified doctors and nurses, thus avoiding repetitive punctures, preserving the patient's venous integrity and health.<sup>14</sup>

The most common types of central catheters are the port-a-cath and the peripherally inserted central venous catheter (CVCIP), which remain inserted throughout the treatment and this time of use can vary between weeks or even years.<sup>15</sup>

This type of catheter is positioned at high vascular flow, thus having advantages related to issues of osmolarity, use for therapeutic routes, volume monitoring, continuity of treatment for long periods and impossibility of peripheral venous access.<sup>16</sup>

To ensure excellence in the execution of insertions, examinations are performed before and after the fixation of the accesses, in order to check for the presence of possible clots and other interferences. This type of catheter, as well as others, restrict certain types of activities and require, during its performance, essential attention to safety standards in order to avoid possible complications.<sup>17</sup>

The technique used for this type of puncture follows requirements such as: strictly follow the principles of asepsis and antisepsis, qualified training, daily surveillance, better anatomical choice and insertion of the catheter (using the Seldinger technique), monitoring of hematological exams and of image.<sup>18</sup>

Like any invasive procedure, the main disadvantages and complications of this technique are related to lesions and infections in the skin, changes related to the size of the vein, neurological, orthopedic and coagulation disorders, renal and infections by microorganisms.<sup>19</sup>

Regarding the peripheral access catheter, they are devices of short duration and inserted through peripheral veins, being seen as a low risk procedure. They are manufactured in teflon or silicone, have low cost and short durability, being widely used in clinical practice.<sup>20</sup>



**Source:** UNIDERP, 2010.

This type of puncture is a technique widely performed by the nursing team to infuse solutions, collect blood, administer blood components or maintain venous access. The handling of this type of procedure is one of the most widespread, being used by about 70% of patients who are indicated for the insertion of invasive devices.<sup>21</sup>

The main complications of this type of catheter are characterized by the type of medication used, as these drugs can cause local discomfort, injuries or necrosis. To reduce these types of disorders, it is very important that the nursing professional knows the type of drug that will be administered.<sup>20</sup>

We have another question that should be taken into consideration and that is essential in the relationship with nursing care, that is, the professional must have early knowledge about the assessment of permeability of the vessel in order to minimize possible complications.<sup>22</sup>

### **Etiology of Causative Agents**

Currently, hospital occurrences caused by healthcare-related infections (HAIs) continue to be worrying events throughout the health system, as they are one of the main causes of mortality and comorbidities in the hospital environment.<sup>13</sup>

These causative agents are introduced in various outpatient settings and are specifically present in invasive devices such as central and peripheral venous catheters, causing and favoring bloodstream infections that trigger various deleterious effects.<sup>23</sup>

These occurrences are diagnosed through tests such as blood cultures and/or culture of the catheter tip, however, due to the large contingency of cases and the delay in identifying the pathogen, the length of stay increases and the risk of contracting other comorbidities grows considerably.<sup>17</sup>

The pathogenesis of these infections is multifactorial and complex, as according to data already cataloged, most bacteremias are associated with catheters. This colonization begins at sites located at the insertion, in hematogenous pathway, intrinsic contamination and contamination by contact.<sup>14</sup>

The main access route for these types of infections is embedded in the tip of the catheters and the biofilm formation is the main pathogen coefficient. Microbial biofilms comprise a grouping of cells agglutinated under a surface and with each other and impregnated with extracellular polymeric substances.<sup>24</sup>

It is the microorganisms themselves that produce this composition and its fundamental principle is to increase the probabilities of survival of this pathogen

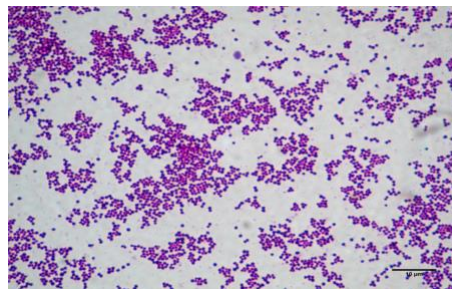
in a given environment. In addition to the formation of biofilms, other factors provide these infections in the bloodstream such as: immune status, pre-existing comorbidities, catheter permanence time, insertion difficulty, among others.<sup>25</sup>

These contaminations occur through extraluminal and intraluminal colonization of the catheter. In the first route, the bacteria appear on the patient's skin and places where the catheter is inserted and its connections, while internally they occur through the infusion of contaminated solutions and hematogenous dissemination.<sup>26</sup>

In these biofilms, one or more species can be identified, among which are *Staphylococcus aureus*, *Staphylococcus coagulase negative*, *Klebsiella pneumoniae*, *Pseudomonas aeruginosa*, *Enterococcus* spp., *Candida auris*, *Aspergillus fumigatus* and *Fusarium solani*.<sup>27</sup>

*Staphylococcus aureus* (more virulent) and *Staphylococcus coagulase negative* are Gram-positive bacteria (figure 3), have a thick cell wall surrounding the cytoplasmic membrane composed of peptidoglycans and teichoic acids. They can be aerobic or anaerobic facultative, of spherical or grouped morphology and when used the Gram method they acquire a purple color on their walls.<sup>28</sup>

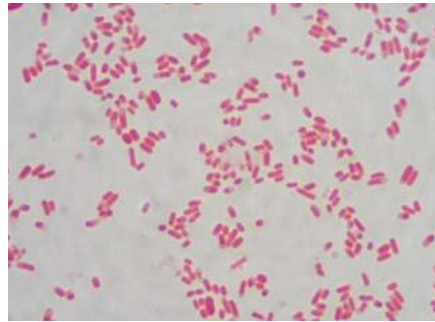
They are present in the skin, nasopharynx and nasal fossae and are considered important agents of nosocomial infections that cause superficial and widespread infections with high severity. It has clinical importance due to the incidence of nosocomial infections, surgical wounds, pneumonia, abscesses, endocarditis and bacteremia and as multi-resistant bacteria.<sup>29</sup>



**Figure 3:** Bacterium *Staphylococcus*  
Source: ANVISA, 2007.

Among Gram negative (figure 4), we can mention *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*, they have a thinner cell wall, surrounded by two other membranes (internal and external). The outer one has lipopolysaccharide molecules. This outer membrane releases a toxic substance called endotoxins, which contribute to worsening symptoms during infections.<sup>30</sup>

They have rod-shaped, encapsulated shapes and acquire a reddish color when introduced to the Gram process. Infections of these types of bacteria occur in several places, causing pneumonia, urinary tract infection and bloodstream infection.<sup>31</sup>



**Figure 4 – Gram Negative Bacteria**

**Source:** ANVISA, 2007.

Among the many microorganisms already mentioned, we have the filamentous fungi such as *Aspergillus fumigatus* and *Fusarium solani* (figure 5), which came to be considered as the cause of serious infections, resistant to antifungal agents and fatal when not treated or detected in time. They are described by yeasts or filamentous fungi, with access routes in the host through the upper airways or rupture in the epidermal barrier.<sup>32</sup>



**Figure 5 – Fusarium Solani**

**Source:** FAPESP, 2016.

## **Preventive measures**

In the country, sepsis related to the use of catheters is a worrying public health problem that requires preventive and surveillance measures every day, making the provisions issued by everyone involved in this process effective. The high rates of nosocomial infections are one of the characteristics that have the greatest impact on mortality rates in hospital environments.<sup>33</sup>

Therapeutic processes with the use of these devices are of paramount importance, however, when used with inadequate practices, these insertions can contribute to the appearance and increased risk of infections, that is, when associated with a lack of planning and prevention methodologies are movements inadequate for maintaining and improving the quality of health care.<sup>8</sup>

One of the first steps that must be applied in the control of these infections is related to real notification, that is, it is necessary that inspection bodies, managers and health professionals, seek through the exchange of information to identify and effectively monitor the progress of these microorganisms. Another important point would be the development of new strategies that prioritize avoidable risk inspection when inserting and handling these catheters.<sup>34</sup>

According to Machado (2012)<sup>35</sup>, the recommendations highlighted by hospital parameters encompass strategies for epidemiological control, such as hand hygiene and asepsis of procedures, but in addition to these guidelines, other points must be considered for control in the transmission of these microorganisms, among these are:

- Use of needle-free connectors, disinfection of infusion lines;
- Use of alcoholic chlorhexidine or 70% alcohol for antisepsis;
- Control and inspection of the site;
- Replacement of materials to be used daily;
- Conducting preventive blood culture exams;
- Evaluation of multidisciplinary teams.

Based on these recommendations, hospital environments seek universal measures for infection control and composition of precautionary barriers, this compared to palliative measures that provide prevention models against the proliferation of these microorganisms, therefore, they need to configure the implantation in a concrete way. maintenance of criteria based on the well-being of the patient and the professionals involved.<sup>35</sup>

#### Importance of the Nursing Professional

The increase in invasive procedures in health care, started to demand an expansion in the constant follow-up and monitoring of hospitalized patients and in periods of supervision. This need is present every day due to the high rate of infections caused by the use of invasive devices, that is, this has become a critical and highly complex area.<sup>36</sup>

Given the repercussion and seriousness of this issue and the increase in mortality and morbidity rates, infections have become a concern not only in Brazil, but worldwide and have started to require plausible and accurate initiatives to minimize them, thus promoting quality of life in hospital care.<sup>37</sup>

In order to know and practice the recommendations for the control and prevention of these infections, the efforts of all the professionals involved are necessary and essential so that the levels of containment in the harmful and virulent effects of these pathologies can be reached..<sup>38</sup>

These measures must be adopted and put into practice by all those involved, from the management of quality and resources, sectors of attention to hygiene and in professional training programs for health and personnel, therefore, knowledge and adherence to these projects will be essential for reduce them.<sup>39</sup>

In multiprofessional teams that work practically 24 hours in follow-up, nursing is one of the categories that make up the largest portion of professionals working in all health services and at different levels of care, so it is necessary that periodic education and retraining programs are carried out. offered to nurses, so that the application of preventive measures such as hand hygiene and antisepsis of the materials used, become essential in the fight against hospital infections.<sup>40</sup>

Assessing the importance and responsibility of nurses with regard to their care practice and supervision activities, it is essential that constant processes of updating their knowledge are offered in order to consolidate the safe practice of patient care and their own health.<sup>40</sup>

In this context, the action of nursing professionals in the recommendations that permeate uninterrupted assistance when monitoring patients in a hospital environment, is necessary every day to enable the prevention and control of infection through the use of catheters and other procedures.<sup>41</sup>

## Conclusion

In the research literature, the effectiveness of these devices as a preventive measure was evidenced through the joint actions of the bodies and medical professionals in the care and regulation of the various existing pathologies. The description of these segments proved to be the best way to provide assistance to patients, promoting greater safety and reducing costs of a prolonged hospitalization due to infections related to pathogens manifested in these devices.

The use of these devices sometimes becomes essential in the treatment for short or long periods, however the risks of using these equipment recklessly cause persistent and harmful illnesses. For this reason, the participation of nurses is necessary as a risk minimizing agent, having paramount importance in maintaining the quality of care for the patient, since these professionals need to base their care actions on proven scientific evidence.

We can see that the need for public health policies and monitoring in the qualification of professionals becomes evident in order to mitigate the risks of infection caused by the erroneous and negligent insertion of central and peripheral catheters.

The quality of care reflects the functional capacity and the incidence of diseases, making it possible to identify imminent or future risks, so that patients and nursing professionals can have a long and healthy life.

## Acknowledgment

This research did not receive funding for its performance.

## References

1. DUARTE, E. D, PIMENTA, A.M.; SILVA, B. C.; PAULA, C.M.D. Fatores associados à infecção pelo uso de cateter central de inserção de pacientes em uma unidade de Terapia Intensiva Neonatal - Revista da Escola de Enfermagem da USP: 47: 547-554. São Paul 2011.
2. COSTA, A. P. C. M. Infecção Hospitalar: análise do conhecimento dos graduandos de Enfermagem quanto às medidas de precauções e isolamento, 89p. Monografia (Pós-graduação em Gestão em CIH) Faculdade Brasileira de Recursos Humanos - Instituto Hoyler, São Paulo, 2012.
3. SANTOS, A. A. M. dos; FRANÇA, E. Vigilância epidemiológica das infecções hospitalares. Infecções hospitalares: epidemiológica, prevenção e controle. Rio de Janeiro: p. 15-33. Guanabara Koogan, 2012.



4. BETIOLI, A. B. Bioética, a ética da vida: (onze temas) - São Paulo, 2013.
5. SANTOS, E. F.; OLIVEIRA, F. L. P. A avaliação da qualidade e o controle de infecção hospitalar. *Brasília Médica*, Brasília, v. 36, n. 1/2, p. 2628, Brasília, 2009.
6. SILVEIRA, R.C.C. P. O cuidado de enfermagem e o cateter de Hickman: a busca de evidências [tese]. Ribeirão Preto: Universidade de São Paulo; 2005.
7. ROSSI, J. A.; ALMEIDA, D. E. Conceitos e indicadores de infecção hospitalar. 9 ed., p. 79-81. São Paulo, 2010.
8. CAVALCANTE, N.J. F; FACTORE, L. A. P; FERNANDES, A. T; BARROS, E. R. Unidade de Terapia Intensiva. In: FERNANDES, ANTONIO TADEU. Infecção Hospitalar e suas Interfaces na Área de Saúde. vol. 1, cap. 36 p. 749 - 755. São Paulo - SP. Atheneu, 2009.
9. SILVA, N. B. Controle de Infecção Hospitalar em Terapia Intensiva de Adultos. *MEDSI*: 32 p. 609- 618. Rio de Janeiro, 2008.
10. DAMASCENO, K. S. Avaliação da Adesão às medidas de Prevenção de Infecção Relacionadas a Cateteres entre Profissionais de Saúde de hospitais de Maringá. V. 10 nº 01, jan./jun. Maringá, 2008.
11. NOVAES, H. M. Avaliações de programas, serviços e tecnologias de saúde, *Revista de Saúde Pública* - São Paulo, 2000.
12. TRINDADE, E; HOFMEISTER, M. G.; FORMAZIER, C.; CRUZ, C. F.; ALMEIDA, K.; CARVALHO, W. L. Hospitais Sentinelas - Notificações de Tecnovigilância Envolvendo Cateteres Venosos Centrais. *NOTIVISA* - 2007.
13. ANVISA. Medidas de Prevenção de Infecção Relacionada à Assistência à Saúde/Agência Nacional de Vigilância Sanitária. ANVISA. Brasília, Brasil: Agência Nacional de Vigilância Sanitária 2017.
14. SILVA, A. G. D.; OLIVEIRA, A. C. D. Prevenção da infecção da corrente sanguínea relacionada ao cateter venoso central: Uma revisão integrativa. *Vigil. sanit. Debate*: v. 4, n. 2, p. 117-125, 2016.
15. MARQUES NETTO, S.; ECHERB, I. C.; KUPLICH, N. M.; KUCHENBECKER, R.; KESSLER, F. Infecção de cateter vascular central em pacientes adultos de um centro de terapia intensiva. *Rev Gaúcha Enferm.*: v. 30, n. 3, p. 429-36, 2009.
16. AMADEI, J. L.; DAMASCENO, K. S. Avaliação da Adesão às medidas de Prevenção de Infecção Relacionadas a Cateteres entre Profissionais de Saúde de hospitais de Maringá. *Iniciação Científica CESUMAR*: v. 10 nº 01, jan./jun. Maringá, 2008.
17. CORRÊA, K. D. L. G.; ALMEIDA, G. M. D. D.; JÚNIOR ALMEIDA, J. N. D.; ROSSI, F. Diferença de tempo de positividade: método útil no diagnóstico de infecção de corrente sanguínea relacionada com cateter? v. 48, n. 3, p. 195-202. *Bras Patol Med Lab*, 2012.

18. DALLÉ, J.; KUPLIHC, N. M.; SANTOS, R. P. D.; SILVEIRA, D. T. Infecção relacionada a cateter venoso central após a implementação de um conjunto de medidas preventivas (bundle) em centro de terapia intensiva. v. 32, n. 1, p. 10-17. Rev HCPA, 2012.
19. NOUÉR, S. A. Prevenção de Infecções Relacionadas com Cateteres Vasculares em Unidades de Terapia Intensiva; Curso sobre infecção no paciente grave. SBI - Sociedade Brasileira de Infectologia. São Paulo, 2008.
20. SILVA, A. P. S. S, COGO, A. L. P. Aprendizagem de punção venosa com o objetivo educacional digital no curso de graduação em Enfermagem: 28(2):187-92. Rev Gaúcha Enferm, 2007.
21. NEGRI, D. C.; AVELAR, A. F. M.; ANDREONI, S.; PEDREIRA M. L. G. Fatores predisponentes para insucesso da punção intravenosa periférica em crianças. Revista Latino-Americana de enfermagem: v.20, n.6. pag. 1-8, 2012.
22. MARTINS, K.A.; TIPPLE, A. F. V.; SOUZA, A.C. S.; BARRETO, R.; SIQUEIRA, K.M.; BARBOSA J. M. Adesão as medidas de prevenção e controle de infecção de acesso vascular periférico pelos profissionais da equipe de enfermagem. Cienc Cuid. Saúde: 7:485-92. São Paulo, 2008.
23. FERNANDES, A.T. Novas tecnologias para o controle das infecções relacionadas ao acesso vascular. Intravenous: 17:5-6, 2007.
24. BRACHINE, J. D. P.; PETERLINI, M. A. S. B.; PEDREIRA, M. D. L. G. Método bundle na redução de infecção de corrente sanguínea relacionada a cateteres: Revisão integrativa. Rev Gaúcha Enferm., v. 33, n. 4, p. 200-210, 2012.
25. PEREIRA, F. G. F.; CHAGAS, A. N. S. D.; FREITAS, M. M. C.; BARROS, L. M.; CAETANO, J. Á. Caracterização das infecções relacionadas à assistência à saúde em uma Unidade de Terapia Intensiva. Vigil. sanit. Debate: v. 4, n. 1, p. 70-77, 2016.
26. KOCSSIS, E. Biofilmes relacionados a cateteres. Intravenous: 15:10-11 05, São Paulo, 2008.
27. MENDONÇA, S. H. F.; LACERDA, R. A. Impacto dos conectores sem agulhas na infecção da corrente sanguínea: revisão sistemática. Acta Paul Enferm, v. 23, n. 4, p. 568-73, 2010.
28. SOUZA, L.B.G.; FIGUEIREDO, B.B. Prevalência de Infecções Nosocomiais Provocadas por *Staphylococcus aureus* Resistente à Meticilina (M.R.S.A.), no Hospital Universitário Regional de Maringá. Revista Brasileira de Análises Clínicas RBAC: vol.40 n.1 p.31-34. Maringá, 2008.
29. TRABULSI, L.R; ALTERTHUM, F. Microbiologia. Atheneu: 4 ed.; p.175-182. São Paulo, 2005.
30. MELO, G.B.; MELO, M.C.; CARVALHO, K.S.; GONTIJO FILHO, P.P. Gram negativos e infecções hospitalares em um Hospital Universitário Brasileiro. Revista Ciências Farmacêutica Básica Aplicada: vol.30 n.1, p.45-50. São Paulo, 2009.

31. ANVISA. Resistência microbiana: mecanismos e impactos clínicos. Brasília; 2007. Disponível em: [www.anvisa.gov.br](http://www.anvisa.gov.br). Acesso em 30 out 2020.
32. FAPESP – Fundação de Amparo à Pesquisa do Estado de São Paulo. O ataque silencioso dos Fungos. Ed. 243, São PAULO, 2016. Disponível em <https://revistapesquisa.fapesp.br/o-ataque-silencioso-dos-fungos/> Acesso em 01 nov 2020.
33. GUIMARÃES, A. C.;DONALISIO, M. R.;SANTIAGO, T. H. R.;FREIRE, J. B. Óbitos associados à infecção hospitalar, ocorridos em um hospital geral de Sumaré-SP, Brasil. Rev Bras Enferm: v. 64, n. 5, p. 864-9, 2011.
34. FERNANDES, A. T; FILHO, N. R. Infecção do Acesso Vascular. Infecção Hospitalar e suas Interfaces na Área de Saúde. Atheneu: vol. 1 cap. 22, p. 556 – 575. São Paulo, 2010.
35. ASSIS, D. B.; MADALOSSO, G.; FERREIRA, S. A.; YASSUDA, Y. Y. Análise dos dados do sistema de vigilância de infecção hospitalar do estado de São Paulo - ano 2009. BEPA, Bol. Epidemiol. Paul. v.7, n. 80, p. 10-30, 2010.
36. ARANHA, N. S. Prevenção de Infecções Relacionadas com Cateteres Vasculares em Unidades de Terapia Intensiva; Curso sobre infecção no paciente grave. Sociedade Brasileira de Infectologia. São Paulo, 2008.
37. SILVA, N. B; RAVANELLO, M. L. Controle de Infecção Hospitalar em Terapia Intensiva de Adultos. Infecção Hospitalar e outras complicações não-infecciosas da Doença – Epidemiologia, Controle e Tratamento. MEDSI: 3ª ed, Cap. 32 p. 609- 618. Rio de Janeiro, 2011.
38. OLIVEIRA, A. C, PAULA, A. O. Infecções relacionadas ao cuidar em saúde no contexto da segurança do paciente: passado, presente e futuro. Rev Mineira Enferm [Internet]. 2013.
39. MESQUITA, A. P. C. Infecção Hospitalar: análise do conhecimento dos graduandos de Enfermagem quanto às medidas de precauções e isolamento. Pós-graduação em Gestão em CIH) - Faculdade Brasileira de Recursos Humanos – Instituto Hoyler, São Paulo, 2006.
40. BECCARIA, L. M.; PEREIRA, R. A. M.; CONTRIN, L. M.; LOBO, S. M. A.; TRAJANO, D. H. L. Eventos adversos na assistência de enfermagem em uma unidade de terapia intensiva. Rev. Bras. Terap. Intensiva, v. 21, n. 3, p. 276-282, 2009.
41. ARMOND, G. A. Técnica de lavagem de mãos. Manual de infecção hospitalar, epidemiologia, prevenção e controle. MEDSI: 2, p.136-324. Minas Gerais, 2009.
42. BITTAR, O. J. N. V. Indicadores de qualidade e quantidade em saúde. Rev. Adm. Saúde, v. 12, n. 3, p. 21-28, 2009.

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# Performance of the nursing team in the establishment of addition between mother and son: integrative review

## Atuação da equipe de enfermagem no estabelecimento do apego entre mãe e filho: revisão integrativa

## Desempeño del equipo de enfermería en el establecimiento de la afición entre madre e hijo: revisión integrativa

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**How to cite:** Oliveira RS, Sousa TV, Freitas DA, Carvalho-Filha FSS, Sá ES, Vilanova JM, et al. Performance of the nursing team in the establishment of addition between mother and son: integrative review. REVISA. 2021; 10(4): 697-709. Doi: <https://doi.org/10.36239/revisa.v10.n4.p697a709>

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Received: 27/07/2020  
Accepted: 21/09/2020

### RESUMO

**Objetivo:** Demonstrar as evidências científicas disponíveis na literatura atual acerca da atuação da equipe de enfermagem no estabelecimento de relações de apego entre mãe e filho. **Método:** Revisão integrativa da literatura realizada em abril de 2020 nas bases: Biblioteca Virtual em Saúde, United State National Library of Medicine e Scientific Electronic Library Online. Utilizou-se como descritores: “Relações mãe-filho/mother-child relationships”, “enfermagem/nursing” e o descritor não controlado “apego/attachment” combinados pelo operador booleano “AND”. **Resultados:** As dificuldades no estabelecimento de apego entre mãe e filho foram destacadas quando as crianças estão hospitalizadas, quando são deixadas em instituição de ensino ou pessoas externas e quando as mães tiveram hábitos inapropriados durante o período gravídico-puerperal que possa ter afetado o crescimento e desenvolvimento do bebê. A enfermagem facilita o estabelecimento do vínculo mãe e filho, atenua fatores estressores de forma humanística baseada na integralidade. **Conclusão:** O estabelecimento satisfatório do comportamento de apego é essencial para a saúde mental do ser humano. Envolver-se no cuidado na hospitalização e educação de uma criança requer conhecimento dos seus condicionantes biológicos, psicológicos, sociais, ambientais, para que se compreenda a complexidade da situação de afastamento do meio familiar.

**Descritores:** Relações mãe-filho; Relações Materno-Fetais; Enfermagem Familiar; Vínculo Afetivo; Vínculos Emocionais.

### ABSTRACT

**Objective:** To demonstrate the scientific evidence available in the current literature about the performance of the nursing team in establishing attachment relationships between mother and child. **Method:** Integrative literature review conducted in April 2020 on the Virtual Health Library, United State National Library of Medicine and Scientific Electronic Library Online databases. The following descriptors were used: “Relações mãe-filho/mother-child relationships”, “enfermagem/ Nursing” and the uncontrolled descriptor “apego/attachment” combined by the Boolean operator “AND”. **Results:** The difficulties in establishing attachment between mother and child were highlighted when the children are hospitalized, when they are left in an educational institution or outside persons and when the mothers had inappropriate habits during the pregnancy-puerperal period that may have affected growth and baby development. Nursing facilitates the establishment of a mother-child bond, mitigating stressors in a humanistic manner based on comprehensiveness. **Conclusion:** The satisfactory establishment of attachment behavior is essential for human mental health. Getting involved in the care of a child's hospitalization and education requires knowledge of its biological, psychological, social, and environmental conditions, in order to understand the complexity of the situation of distance from the family.

**Descriptors:** Mother-child relationships; Maternal-Fetal Relations; Family nursing; Affective Bond; Emotional Links.

### RESUMEN

**Objetivo:** Demostrar la evidencia científica disponible en la literatura actual sobre el desempeño del equipo de enfermería en el establecimiento de relaciones de apego entre madre e hijo. **Método:** Revisión integrativa de la literatura realizada en abril de 2020 en las bases de datos de la Biblioteca Virtual em Saúde, United State National Library of Medicine y Scientific Electronic Library Online. Se utilizaron los siguientes descriptores: “Relações mãe-filho/mother-child relationships”, “enfermagem/ nursing” y el descriptor no controlado “apego / attachment” combinado por el operador booleano “AND”. **Resultados:** Se destacaron las dificultades para establecer el vínculo entre madre e hijo cuando los niños son hospitalizados, cuando se les deja en una institución de enseñanza o personas ajenas y cuando las madres tenían hábitos inapropiados durante el periodo gestacional-puerperal que pueden haber afectado el crecimiento y desarrollo del bebé. La enfermería facilita el establecimiento de un vínculo madre-hijo, mitigando los estresores de manera humanista basada en la integralidad. **Conclusión:** El establecimiento satisfactorio de la conducta de apego es esencial para la salud mental humana. Involucrarse en el cuidado de la hospitalización y educación de un niño requiere el conocimiento de sus condiciones biológicas, psicológicas, sociales y ambientales, para comprender la complejidad de la situación de distanciamiento de la familia.

**Descriptores:** Relaciones madre-hijo; Relaciones materno-fetales; Enfermería de la Familia; Vínculo afectivo; Enlaces emocional

## Introduction

At birth, the baby has some functions and abilities that demonstrate his aptitude for the extrauterine environment, however, he is a helpless human being and unable to meet his basic human needs, and it is up to the caregiver (family or health professional) to meet these needs and provide a safe and welcoming environment.<sup>1</sup>

Faced with this dependence, which leads the child to completely need someone, it is possible to understand the Theory of Attachment: the child's search for survival and safety. The interaction between baby and caregiver is essential for the development of attachment, and this conviviality is the primary social environment of the individual, fulfilled a fundamental role in human development.<sup>2</sup>

In this context, attachment can be understood as the set of behaviors of the baby that is characterized not only by the search for physical proximity to the mother, but by the exploration of the environment. Thus, through the family figure, attachment develops, when it is related to the growth and development of a child, it imprints on the identity of the being, figures of self-esteem and perceptions of the environment in which they live. Therefore, it influences the formation of your personality, tending the way of feeling, thinking, acting, even speaking. The theory of attachment in understanding the child's development from complete dependence on care to the ability to regulate affection, the perception of individuality and social capacity is highlighted.<sup>2-3</sup>

Over the years, it has been observed that the development of life is directly linked to its physical, mental and psychological growth. And also, that child development depends not only on biological factors, but also on environmental factors, being influenced by family relationships and the environment that the child is inserted. Due to this need for continued physical and intellectual development, the need for maternal care at the child during their first months of life is predominantly verified.<sup>4</sup>

From this perspective, at the beginning of World War II foundations were set up in Europe to welcome orphaned refugees and children away from their parents. These institutions made children look after a situation to learn how to deal with the separation and loss of their parents and to develop socially and emotionally. With the end of the war, the reconstruction of the cities and the re-establishment of social life, these units were consolidated and called day care centers, which constituted services in which women left their children, thus having a freedom of access to the labor market and economic heating.<sup>5</sup>

Moreover, in view of this example and the constant changes in family patterns, we can observe that many mothers have been seeking support, which they have not always found in the family context and have reinvented themselves through social networks to which they seek help, guidance in appropriate ways aimed at the care of their children. This support and care has also been found in early childhood education institutions that aim to contribute and help in the needs of mothers. In addition, in the health services from which the parents seek guidance and care for the maintenance of the health of their children.<sup>6</sup>

In this current conjuncture of demand for care for the child, it is perceived that health education emerges as a practice capable of favoring recovery and healing, in addition to promoting health, as well as supporting the professional to evaluate the conditions of the mother or any other responsible person, to

assume, with sufficiency, care. Therefore, all opportunities should be used to talk and exchange experiences, perceiving their condition of caring for the child and demonstrating an attitude of understanding and approximation with the reality of families, that is, establishing an intersubjective relationship with these people who seek services in search of children's health, an objective not always achieved.<sup>7</sup>

In line with the conception of the importance of educational practice, the nursing team presents itself as an interventionist acting incisively and less painfully for both parties, mother-child. Here is the nurse health educator, who has an instigating role of contributing positively to the process of adaptation of the binomial, seeking to make this process of growth and development of the child less harmful, more pleasurable and strengthening the attachment process.<sup>5,8</sup>

Exposed to the above-mentioned complexity, the following question is asked: What is the nursing team's role in establishing the relationships of attachment between mother and child? To achieve the response to this research question, the aim of this study was to demonstrate the scientific evidence available in the current literature on the performance of nursing in establishing attachment relationships between mother and child.

## Method

This is an integrative review of the scientific literature. The integrative review is a study that takes place from the analysis of relevant research from secondary sources through a bibliographic survey that gathers knowledge about the phenomenon to be investigated. It is a research technique with methodological, judicious and conscientious rigor, which increases the credibility and depth of conclusions that can contribute to reflection on the realization of future studies, thus also contributing to decision-making that seeks the improvement of recent evidence.<sup>9</sup>

In the present study, we chose to search databases of wide scientific dissemination in the national and international environment, using the Virtual Health Library (VHL), the United State National Library of Medicine (PubMed) and the Scielo (Scientific Electronic Library Online).

In the digital search of the scientific articles indexed in the aforementioned databases, which occurred in April 2020, the following terms were used among the Descriptors in Health Science (DeCS) and Medical Subject Headings (Mesh): "Mother-child relationships", "nursing/nursing" and the uncontrolled descriptor "attachment" combined by the Boolean operator "AND" as explained in Chart 1. The search was also based on the research question: How is the nursing team's role in establishing the relationships of attachment between mother and child?

**Table 1-** Search strategy in databases. Brasília, Distrito Federal, Brazil, 2020.

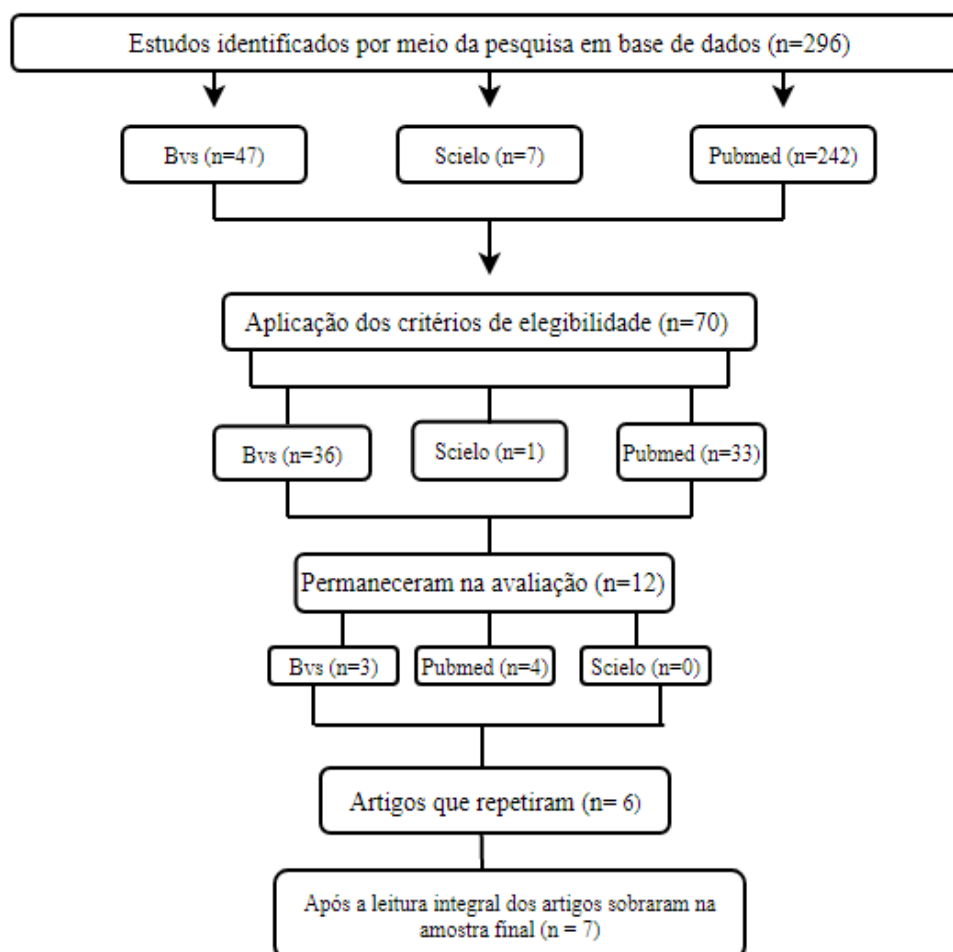
Database	Search Strategy	Results	Filtred	Selected	Repetition
BVS (DECS)	tw:(relações mãe-filho AND apego AND enfermagem) AND (fulltext:"1") AND (year_cluster:[2010 TO 2020])	47	4	3	5
Scielo (DECS)	Relações mãe-filho and apego and enfermagem	7	0	0	1
PubMed (Mesh)	("mother-child relations"[MeSH Terms] OR ("mother-child"[All Fields] AND "relations"[All Fields]) OR "mother-child relations" [All Fields] OR ("mother"[All Fields] AND "child"[All Fields] AND "relationships"[All Fields]) OR "mother child relationships" [All Fields]) AND ("Attachment (Lond)"[Journal] OR "attachment" [All Fields]) AND ("nursing"[Subheading] OR "nursing" [All Fields] OR "nursing"[MeSH Terms] OR "nursing" [All Fields] OR "breast feeding" [MeSH Terms] OR ("breast"[All Fields] AND "feeding"[All Fields]) OR "breast feeding"[All Fields]) AND ("2010/04/28"[PDat] : "2020/04/24"[PDat])	242	8	4	5
Total		296	12	7	11

After the survey of the research results, the language (texts published in Portuguese, English and Spanish), the publication period (between 2000 and 2020) and its full availability (available in full) were applied as filters within the database and eligibility criteria. After the selection of titles and abstracts, studies that answered and met the research objective were included and dissertations, theses, editorials and literature reviews were excluded.

After the complete reading of the articles, seven studies were selected for the final sample as demonstrated by a flowchart below. From these, information was also extracted for the composition of the sinoptic table, and then the articles were presented through the following variables: authors, title, year of publication, basis, journal of publication, level of evidence according to the gridmethod<sup>10</sup>, method and country.



**Figure 1-** Flowchart of the steps related to the search for evidence in the databases. Brasília, Distrito Federal, Brazil, 2020.



The studies were also categorized and presented by central themes: facilities and difficulties in establishing and reestablishing attachment between mother and child; and, the nursing team's role in restoring the attachment between mother and child.

## Results and Discussion

Chart 2 shows a predominance of studies with a qualitative approach (n=5, 71.43%), in international journals (n=5, 71.43%), with very low level of evidence according to the Grade method (n=5, 71.43%) and which were concentrated in nursing journals (n=4, 57.14%).

**Table 2-** Sinoptic table of the final sample according to authors, title, year of publication, database, journal of publication, level of evidence according to the Grid method, method and Country of publication (n=7). 2020.

Authors	Title	Year	Database	Journal	Evidence Level	Method	Country
Rockefeller K, Macken C.L, Craig A.	Trying to do what is best: A qualitative study of maternal-infant bonding and neonatal abstinence syndrome	2019	PUBMED	National Association of Neonatal Nurses.	Very Low	Descriptive qualitative study.	United States of America
Fatmawati A, Rachmawati N.I, Budiati T.	The influence of adolescent postpartum women's psychosocial condition on mother-infant bonding	2018	PUBMED	Enfermería clínica.	Very Low	Descriptive qualitative study	Spain
Feeley N, Genest C, Niela-Vil'ne, H, Charbonneau L, Axelin A.	Parentes and nurses balancing parent-infant closeness and separation: a qualitative study of NICU nurses' perceptions	2016	BVS	BMC Pediatrics.	Very Low	Descriptive qualitative study	United States of America
Alhusen J,L. Hayat M.T, Gross D.	A longitudinal study of maternal attachment and infant developmental outcomes	2013	PUBMED	Archives of Women's Mental Health.	Low	Analytical quantitative.	United States of America
Akbarzadeh M, Dokuhaki A, Joker A, Pishva N, Zare N.	Teaching attachment behaviors to pregnant women: a randomized controlled trial of effects on infant mental health from birth to the age of three months	2016	PUBMED	Annals of Saudi Medicine.	Moderate	Quantitative, longitudinal, retrospective and analytical type control case.	United States of America
Roecker S, Marcon S.S, Decesaro M.N, Waidman M.A.P.	Mother-child binomial based on attachment theory: meanings and perceptions about early childhood	2011	BVS	Revista de enfermagem da UERJ.	Very Low	Descriptive-exploratory quantitative approach	Brazil

	education center						
Terra A.A.A, Dias I.V, Reis V.N.	Nursing acting as a facilitator of maternal-branch attachment	2011	BVS	Revista de enfermagem do centro oeste mineiro.	Very Low	Descriptive qualitative approach.	Brazil

### Facilities and difficulties in establishing and (re) establishing attachment between mother and child

The bond between mother and child is created from the visual contact and responses of signs and behaviors of children based on affection, which will influence the way they will interact and socialize with people during their development.<sup>11</sup>

Thus, it can be considered that teaching mothers about some practices that should be developed with the fetus/baby such as: feeling the movements of the fetus increasing during the gestational period, speaking, looking and caressing the stomach, naming, encouraging other family members to talk, visualize the face, experience breastfeeding and embrace the fetus can lead to a significant improvement in attachment between mothers and the child, stimulating the mother's emotions, resulting in greater interaction with the baby.<sup>12-13</sup>

Thus, these practices provide the reduction of anxiety and denial in relation to the conceptus, providing the improvement of the mental health of this after its birth.<sup>12,13</sup>

With regard to suffering in bond breaking, mothers/caregivers mention as predictors to the suffering of children enrolled in Children's Teaching Centers (CIS) or hospitalized, caused by outsourcing the care of their children, attachment in the hospital and educational area is considered by mothers as negative and uncomfortable situations regarding the breaking of bonds.<sup>14</sup>

A study conducted in the United States of America, between 2010 and 2011 with 166 participants, evaluated the association between Maternal Fetal Attachment (MFA) and neonatal outcomes during pregnancy demonstrating that some parents tend to be more attached to their children, consequently, parents are more receptive and sensitive, resulting in better development of their children. In a similar way, women in gestational periods who have demonstrated greater maternal affection, present safer attachment styles and consequently, children present a correct development in their early childhood compared to other children.<sup>12</sup>

Another negative aspect regarding the entry of early childhood children into an IEC or who need to be hospitalized for some problem, denotes for these more attached parents the possibility of presenting symptoms of depression, reflecting in their children and may cause restrictions in their development in early childhood, caused by the multiplicity of other paternal care that shake the strong bond of attachment.<sup>12</sup>

Thus there are two styles of attachments in adults, insurance, in which the "safe basis" has full availability and responsiveness to their attachment figure, and the insecure, which occurs when the caregiver does not correspond at desirable and/or indispensable moments.<sup>12,13</sup>

The unsafe maternal attachment style is linked to symptoms of postpartum depression and may negatively impact infant development in the first stages of the child's life. In addition, anxiety and stress during pregnancy can also cause growth and development disorders in children.<sup>12-13</sup>

Therefore, it is not suggested that unsafe attachment remains in the relationship between mother and child, also in the relationship of maternal fetal attachment during pregnancy, and can demonstrate that depression during pregnancy can lead to a lower maternal affection, focusing on trust and its role as a mother, with consequences on the performance of the maternal role in the phase of the child's entry into an IEC and/or bonding when it needs to be Hospitalized.<sup>12-13</sup>

Many of these problems that usually occur in the postpartum period such as depression, anxiety and stress can negatively affect mother and child. Thus, a negative link is established in the binomial and may show rejection of the baby that results in negligence and carelessness even ill-treatment. In the meantime, in the study of adolescent mothers in Indonesia it was shown that the results of neglect between mothers and their children are high.<sup>15</sup>

Therefore, as a result of a child's limitations in facing stressful situations such as entering an IEC, coping strategies should be created. A study conducted in the municipality of Maringá/PR, with 12 mothers with the objective of demystifying the meaning of the CIS for mothers who had children entering such institutions, demonstrated that these units present themselves as a place of safety, learning, trust, care and help so that they could work.<sup>14</sup>

Therefore, for the better adaptation of children in CIS, factors such as: increase the time in which the baby stays in the institution over the first few weeks; decrease the number of children adapting according to the week; admit a family member during the adaptation period; summon a family member at the time of the child's meal; organize the children into small groups according to the counselor and prevent the caregiver from being changed so that it maintains the relationship with the child, proved to be predictors for the adaptation of the child and family in the institutions and to get used to the new routine.<sup>14</sup>

Thus, these adaptation practices can be adopted when mothers are forced to have to enter their children into an CIS. Some mothers, due to work occupations and other reasons of intimate forum, are forced to enter their children early in an CIS, being in many situations terrified by the feeling of fear because they have to leave them under the care of an institution, due to the need to have to go to work and not have a family member to leave. Others leave their children in the care of people they don't know, but trust, and there are those who have hospitalized children and who suffer when they are forced to leave them for their well-being.<sup>11</sup>

Moreover, it is still extremely important that the mother obtains good psychosocial conditions to enable an effective bond between mother and child. A study conducted in Indonesia in 2018 with 103 adolescent women with a baby from 1 to 12 weeks showed an association between mothers with psychosocial problems, compromising mental, emotional and physical health that triggered in the parent's feelings of denial regarding the care provided to their children, making it difficult to create a bond or feeling.<sup>15</sup>

When it comes to adolescence, motherhood in this phase is characterized as a period of many emotions, in which they include feelings of irritation and anguish. These negative points that lead adolescent mothers to feel prevented

from assuming the role, such conditions that can cause an indifference between mother and baby harming in their affective bond and, therefore, attachment.<sup>15</sup>

However, it is essential to highlight that the involvement of fatherhood brings many positive aspects to motherhood, especially with the establishment of actions such as the prenatal partner, thus creating a definitive approximation of the arena of affection and care between father and child. Rockfeller<sup>11</sup> and his collaborators report that many mothers have requested more services and instructions for the paternal part in the hospital. Also according to the researchers, some mothers report feeling welcomed, supported and encouraged by the hospital, in addition to receiving a lot of information regarding Neonatal Abstinence Syndrome (ANS), support to take care of their own children and do what is best for their babies and still supported by the paternal presence.<sup>11</sup>

It is noteworthy that when it comes to mothers dependent on drugs and psychoactive substances such as: benzodiazepines, buprenorphin, gabapentin, selective serotonin reuptake inhibitors (SRIs), heroin, cocaine and marijuana, reported that when receiving the support of community agents or people who have experienced the same experience with addiction or SAN, through community groups, sharing experiences and putting into practice the information given, were of great value for the restoration of the mother-child bond and soon, increasing the feeling of attachment.<sup>11</sup>

Another factor that leads to the breaking of bonds, highlighted in the study done at the Philanthropic Hospital of the city of Juiz de Fora in 2011 with nurses, technicians and nursing assistants, was that the practices in daily professional life and the relationship between parents or family with children hospitalized in a Neonatal Therapy Unit (NICU) cause the parents lack of security that occurs when living with children in an unpleasant environment. Then, in the first contact in the NICU causes a feeling of astonishment resulting from the environment that demonstrates insecurity and concern about the clinical picture of the child, thus feeling unable to provide the care they could provide during the time when their children remain in the hospital, create a feeling of guilt in the face of the baby's hospitalization situation, developing a bond break, caused by the high demand for intensive care for the development of the newborn.<sup>16</sup>

In general, the factors of greater difficulty in establishing and (re)establishing attachment between mother and child were highlighted when children are hospitalized or when they are left in an IEC or with external people to be cared for due to the professional commitments of parents/caregivers and when mothers had inappropriate habits during the pregnancy-puerperal period that may have affected the growth and development of the conceptus.

### **Nursing team's role in restoring the attachment between mother and child**

Nursing can intervene according to reality, identifying a greater knowledge about maternal and paternal feelings and creating possible measures to reduce stressful situations caused by bond breaking, even if it is temporary with regard to the binomial parents and children.<sup>14</sup>

Thus, the role of nursing in unwanted pregnancy, both in adulthood and adolescence, has its importance, as it can avoid many emotional problems in mothers such as: anger, anxiety, postpartum depression and neglect in relation to the baby.<sup>15</sup>

In what corresponds to hospitalized children, nursing has the important function of making the bond again favorable between parents and children, acting in the approach, guiding and stimulating care in this situation. This is due to the approximation of professionals when they bond with hospitalized children who often extrapolate their professional praxis, helping parents to mitigate these bad feelings.<sup>16</sup>

Thus, the constant permanence of the nursing team with the hospitalized child makes the bond stronger and more affectionate, expanding to the extra hospital environment. When this bond is ruptured, resulting from the death or discharge of the patient, it generates a suffering of loss in the professional, which symbolizes extra-family attachment. Therefore, many professionals do not bond with children and parents during the hospitalization process. It is extremely important to work by the nursing team to strengthen the attachment formation of their parents and family members.<sup>16,17</sup>

In this context, nurses seek to answer all doubts that parents have, guiding about the child, creating an approximation and forming affection and attachment, thus opportunities for close relationships between parents and children, which may have meanings of satisfaction in nursing work. Thus, nurses should be seen by the family as friendly people, giving them confidence and demonstrating to be ready, in the technical way as in the scientific way to take care of their children.<sup>16,17</sup>

Similarly, many caregivers tend to have the function of replacing the affection between mother and child so that the child will have a better child development. It is necessary that the pedagogical and health teams seek to reduce as much as possible the problems arising from the separation of the child with his/her parents, providing positively a strengthening in the effective family ties.<sup>14</sup>

Therefore, the nursing team should have a good perception, of the way affective bonds occur and how they should be worked not only with the hospitalized child, but also with the family, especially with the mother who feels guilty, because during pregnancy she used substances or medications that, unfortunately, caused the child's ill state. It is necessary to deconstruct the thought of disability and guilt, so that these psychosocial stressors such as maternal and AnS. So that nurses can intervene positively in the child's maternal bond and even in relation to treatment.<sup>11</sup>

These mothers should be opportunistic and invited to participate in the care of their baby and many of them show to want to be with the child, breaking barriers and creating a connection with their child, mentioning the pleasure of being physically present in the hospital. They also demonstrated knowing the meaning of the bond that was created when breastfeeding or felt the desire to breastfeed and the pleasure of feeding their own child, in addition to creating greater feelings of affection and attachment as love in these moments.<sup>11</sup>

Therefore, nursing presents itself as a facilitator of the establishment and reestablishment of the mother and child bond, attenuating the stressors experienced from conception, permeating the maturation phase until the adverse events that can denote in the health status of the child and the caregiver, in a humanistic way with care based on integrality.

## Conclusion

Nursing plays an important role in the care of the mother-child dyad, being a link that can favor the establishment of attachment between this binomial, both recognizing the influence of the environment for attachment creation and, consequently, promoting bonds, as exercising an educational function in the orientation of the family as the relationship of affection and child development.

Getting involved in the care in the hospitalization and education of a child requires knowledge of its biological, psychological, social and environmental conditions, so that one understands the complexity of the situation of removal from the family environment because of hospitalization or admission to a teaching center.

In this sense, it is expected that the knowledge discussed and presented in this article will be recognized and expanded among nursing professionals, providing a specific professional improvement in the area. It is important to follow the discussions on the theme, considering the reduced amount of studies found that were related to nursing care to children who are experiencing a breakdown of the bond between mother and child.

Thus, it is possible to conclude that the satisfactory establishment of attachment behavior is essential for the mental health of the human being. Soon the positive results of this study, provided, in addition to the expansion of knowledge, an opportunity for reflection on the relevance of this theme for nursing professionals.

## References

1. Delucca M. Teoria da Exterogestação. In: Perillo TVC. Tratado do Especialista em Cuidado Materno-Infantil com enfoque em amamentação. Belo Horizonte: Editora Mamebem, 2019, p. 9-18.
2. Gabatz RIB, Schwartz E, Milbrath VM, Zillmer JGV, Neves, et al. Teoria do apego, interacionismo simbólico e teoria fundamentada nos dados: articulando referenciais para a pesquisa. Texto Contexto Enferm. 2017;26(4):e1940017. Disponível em: <https://doi.org/10.1590/0104-07072017001940017>
3. Ainsworth MDS, Blehar MC, Waters E, Wall S. Patterns of attachment: A psychological study of the strange situation. 1. ed. New York: Psychology Press Classic Editions; 1978.
4. Pratta EMM, Santos MA. Family and adolescence: the influence of family context on its members' psychological development. Psicol Estud. 2007; 12(2): 247-256. doi: <https://doi.org/10.1590/S1413-73722007000200005>
5. Ferreira, EA, Vargas, IMÁ, Rocha, SMM. Um estudo bibliográfico sobre o apego mãe e filho: bases para a assistência de enfermagem pediátrica e neonatal. Rev Latinoam Enferm. 1998;6(4):117-116.
6. Duhn L. The Importance of Touch in the Development of Attachment. Advances in Neonatal Care. 2010;10(6): 294-300. doi:1097/ANC.0b013e3181fd2263. Disponível em: < <https://pubmed.ncbi.nlm.nih.gov/21102171/> >. Acesso em: 17 jul 2020.



7. Queiroz MV, Jorge MS. Estratégias de educação em saúde e a qualidade do cuidar e ensinar em pediatria: a interação, o vínculo e a confiança no discurso dos profissionais. *Interface Comunic Saúde Educ.* 2006; 18(9): 117-30.
8. Mesquita AL, Souza VAB, Moraes-Filho IM, Santos TN, Santos OP. Atribuições de enfermeiros na orientação de lactantes acerca do aleitamento materno. *Rev. Cient. Sena Aires.* 2016;5(2):158-70. Disponível em: <<http://revistafacesa.senaaires.com.br/index.php/revisa/article/view/267>>. Acesso em: 17 ago 2020.
9. Mendes KDS, Silveira RCCP, Galvão CM. Revisão integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto & Contexto Enferm.* 2008;17(4):758-64. Disponível em: <<https://www.scielo.br/pdf/tce/v17n4/18.pdf>>. Acesso em: 16 ago 2020.
10. Brasil, Ministério da saúde (BR). Secretaria de Ciência, Tecnologia e Insumos Estratégicos Departamento de Ciência e Tecnologia. Diretrizes metodológicas Sistema grade manual de graduação da qualidade da evidência e força de recomendação para tomada de decisão em saúde. Brasília (DF); 2014.
11. Rockefeller K, Macken LC, Craig A. Trying to Do What Is Best A Qualitative Study of Maternal-Infant Bonding and Neonatal Abstinence Syndrome. *Advances in Neonatal Care.* 2019;19(5):3-15. doi: <https://doi.org/10.1097/ANC.0000000000000616> .
12. Alhusen JL, Hayat MJ, Gross D. A longitudinal study of maternal attachment and infant developmental outcomes. *Arch Womens Ment Health.* 2013;16 (6): 521-529. Disponível em: <<https://doi.org/10.1007/s00737-013-0357-8>>. Acesso em 18 out 2020.
13. Akbarzadeh M, Dokuhaki A, Joker A, Pishva N, Zare N. Teaching attachment behaviors to pregnant women: a randomized controlled trial of effects on infant mental health from birth to the age of three months. *Ann Saudi Med.* 2016; 36(3): 175-183. Disponível em: <<https://doi.org/10.5144/0256-4947.2013.111>>. Acesso em: 16 out 2020.
14. Roecker S, Marcon SS, Decesaro MN, Waidman MAP. Binômio mãe-filho sustentado na teoria do apego: significados e percepções sobre centro de educação infantil. *Rev Enferm UERJ.* 2012;20(1):27-32. Disponível em: <<https://pesquisa.bvsalud.org/enfermeria/resource/pt/bde-22681>>. Acesso em: 06 out 2020.
15. Fatmawati A, Rachmawati NI, Budiati T. The influence of adolescent postpartum women's psychosocial condition on mother-infant bonding. *Enferm Clin.* 2018;28(1):203-206. Disponível em: <[https://doi.org/10.1016/S1130-8621\(18\)30068-8](https://doi.org/10.1016/S1130-8621(18)30068-8)>. Acesso em: 10 out 2020.
16. Terra AAA, Dias IV, Reis VN. A enfermagem atuando como facilitadora do apego materno-filial. *Rev Enferm Cent O Min.* 2011; 1(3):332-341. Disponível em:

<http://www.seer.ufsj.edu.br/index.php/recom/article/view/72> .

Acesso em: 20 out 2020.

17. Feeley N, Genest C, Niela-Vilén, H, Charbonneau L, Axelin A. Parentes and nurses balancing parent-infant closeness and separation: a qualitative study of NICU nurses' perceptions. Feeley et al. BMC Pediatrics. 2016;16(134). Disponível em: <<https://bmcpediatr.biomedcentral.com/articles/10.1186/s12887-016-0663-1>>. Acesso em: 10 ago 2020.

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# Nursing care and mental health challenges in the family health strategy based on matrix support

## Cuidado de enfermagem e desafios em saúde mental na estratégia de saúde da família a partir do apoio matricial

## Los desafíos de la atención de enfermería y la salud mental en la estrategia de salud de la familia basada en el soporte matricial

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**How to cite:** Santana WD, Macedo FF, Silva RM, Jesus ALS. Nursing care and mental health challenges in the family health strategy based on matrix support. REVisa. 2021; 10(4): 710-22. Doi: <https://doi.org/10.36239/revisa.v10.n4.p710a722>

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Received: 12/07/2021  
Accepted: 19/09/2021

### RESUMO

**Objetivo:** avaliar a produção científica sobre o cuidado do enfermeiro em saúde mental na estratégia de saúde da família a partir da implantação do apoio matricial, bem como identificar os desafios ao cuidar em enfermagem nesse setor. **Método:** Trata-se de uma revisão narrativa da literatura, realizada em novembro de 2020 nas bases de dados: Scientific Electronic Library Online, Literatura Latino-Americana e do Caribe em Ciências da Saúde e Biblioteca Virtual em Saúde, bem como documentos do Ministério da Saúde. Os materiais foram buscados por meio da seguinte estrutura: Saúde Mental; Apoio Matricial; Capacitação de Enfermeiros; Saúde da Família. Incluíram-se artigos da língua portuguesa, nos períodos de 2007 a 2018. Excluíram-se artigos com mais de 15 anos de publicação tendo em vista a atualidade do tema. **Resultados:** 11 artigos científicos compuseram a amostra da pesquisa. Embora os profissionais enfermeiros tenham reportado estarem preparados para lidar com seus pacientes e conhecerem os principais transtornos, poucos foram capazes de detalhar esses conhecimentos. As capacitações e cursos de residência foram citados como estratégia de preparação, mas a insegurança e tempo disposto para lidar com esses pacientes foram impasses para a qualidade do cuidado prestado. **Conclusão:** é necessária maior preparação dos enfermeiros na área de saúde mental a fim de se proporcionar um atendimento resolutivo aos pacientes. Os envolvidos reconhecem que a necessidade da auto avaliação dos apoiadores matriciais e enfermeiros, enfatizam o (re) pensamento das práticas instituídas nas políticas públicas e gestão da estratégia matricial de apoio para a saúde mental.

**Descritores:** Saúde Mental; Apoio Matricial; Capacitação de Enfermeiros; Saúde da Família.

### ABSTRACT

**Objective:** to assess the scientific production on mental health nurse care in the family health strategy from the implementation of matrix support, as well as to identify the challenges in nursing care in this sector. **Method:** This is a narrative review of the literature, carried out in November 2020 in the databases: Scientific Electronic Library Online, Latin American and Caribbean Literature in Health Sciences and Virtual Health Library, as well as documents from the Ministry of Health. The materials were sought through the following structure: Mental Health; Matrix Support; Training of Nurses; Family Health. Articles from the Portuguese language were included in the periods from 2007 to 2018. Articles with more than 15 years of publication were excluded in view of the current nature of the topic. **Results:** 11 scientific articles comprised the research sample. Although professional nurses reported being prepared to deal with their patients and knowing the main disorders, few were able to detail this knowledge. The training and residency courses were cited as a preparation strategy, but the insecurity and time available to deal with these patients were impasses for the quality of care provided. **Conclusion:** greater preparation of nurses in the mental health area is necessary in order to provide resolutive care to patients. Those involved recognize that the need for self-assessment by matrix supporters and nurses, emphasizes the (re) thinking of the practices instituted in public policies and management of the matrix support strategy for mental health.

**Descriptors:** Mental Health; Matrix Support; Training of Nurses; Family Health.

### RESUMEN

**Objetivo:** evaluar la producción científica sobre la atención de enfermería en salud mental en la estrategia de salud de la familia a partir de la implementación de la matriz de soporte, así como identificar los desafíos en la atención de enfermería en este sector. **Método:** Se trata de una revisión narrativa de la literatura, realizada en noviembre de 2020 en las bases de datos: Biblioteca Científica Electrónica en Línea, Literatura Latinoamericana y del Caribe en Ciencias de la Salud y Biblioteca Virtual en Salud, así como documentos del Ministerio de Salud. Los materiales se buscaron a través de la siguiente estructura: Salud Mental; Soporte de matriz; Formación de enfermeras; Salud familiar. Los artículos en lengua portuguesa se incluyeron en los períodos 2007 a 2018. Se excluyeron los artículos con más de 15 años de publicación debido a la naturaleza actual del tema. **Resultados:** 11 artículos científicos conformaron la muestra de investigación. Aunque las enfermeras profesionales informaron estar preparadas para tratar con sus pacientes y conocer los principales trastornos, pocas pudieron detallar este conocimiento. Los cursos de capacitación y residencia fueron citados como una estrategia de preparación, pero la inseguridad y el tiempo disponible para atender a estos pacientes fueron un callejón sin salida para la calidad de la atención brindada. **Conclusión:** es necesaria una mayor preparación del personal de enfermería en el área de salud mental para brindar atención resolutoria a los pacientes. Los involucrados reconocen que la necesidad de autoevaluación por parte de los apoyadores de la matriz y las enfermeras, enfatiza el (re) pensamiento de las prácticas instituídas en las políticas públicas y la gestión de la estrategia de soporte de la matriz para la salud mental.

**Descriptores:** Salud Mental; Soporte de matriz; Formación de enfermeras; Salud familiar.

## Introduction

Of the most diverse "evils" that humans experience, madness, mental illness and psychological and emotional suffering seem to affect people of any nationality, race, social class and religion, without exception or distinction. However, as is already clear and clear to all, people with few financial resources are the ones who suffer the most, due to limitations in health care and care.<sup>1</sup>

As a method to treat or mitigate the problems caused by mental illness, the Family Health Strategy (ESF) has relevance in promoting prevention, rehabilitation, health and recovery of mental clinical situations that we have already cited and, for this whole scenario, nurses are more likely to have greater contact with patients who are thirsty for these conditions.<sup>2</sup>

According to the definition used by the World Health Organization (WHO), the term "mental health" is used to describe people's cognitive or emotional quality of life (QoL), and it is also described that cultural differences, subjective judgments and related competing theories may affect such definition.<sup>3</sup>

Mental health research involves men in general, that is, it covers biological, social, psychological and spiritual aspects. From the social sphere where the person finds himself to the stage of development in which he discovers himself. Therefore, mental health should be understood as an event of constantly changing thinking and caring in the person with mental disorder.<sup>2</sup>

In areas such as health and nursing, equipment that assists and is very effective in many medical scenarios conceive new theoretical paths and point out new practical possibilities. Therefore, field research has intensified the actions developed in health services, in which the evaluation of results should incorporate clinical, singular and social variables, a complex and comprehensive task in which technical and relational skills provide a new synthesis, in a way that is more appropriate to the real situation of the region.

Given the health needs of the region and the difficulties and limitations of the primary care team, the Family Health Support Center (NASF) was established in January 2008 to act in expanding care to users.<sup>24</sup> The nasf's work is conducted by the theoretical-methodological framework through Matrix Support, matrix support is a new way of producing health, in which two or more teams present teaching suggestions and therapeutic interventions in the joint construction process. Applicable to primary care, it refers to the strategy of organizing health work according to the needs of expanding the scope of the ESF, requiring an interdisciplinary team that will provide health care and care in the region jointly, enhancing the development of health care.<sup>8</sup>

In Primary Health Care (PHC), the role of nursing has changed significantly, mainly by actions that, until then, did not focus on strategies of isolation and confinement. However, by redefining and remodeling the strategic model, the nursing professional opened a broader field and carried out new actions. If these were previously limited to the care of hospitalized patients, it can now include conflict resolution and disabilities, including care for healthy people.<sup>2</sup>

In this context, the position of the nurse's role in PHC is to be the initial/primary agent in mental health care. Therefore, professionals need to improve the habit of working as a team and with the patients' families, in addition to participating in action plans to estimate the real needs of the

community and provide comprehensive care, and this type of care can undergo reformulation of practice and teaching frequently.<sup>5</sup>

By raising the existing needs in the area of mental health in our country, the "Matrix Support of Primary Care" was formulated as a strategy to improve the resolution of actions and proposed ways to reorganize the organization of services and the relationship between general and professional networks.<sup>4</sup>

However, nursing practice points out that the integration of mental health care networks at the community level is an important difficulty, including the insertion of health professionals with the clinical staff (matrix supporters and nurses have very diverse behaviors) weakening the matrix.<sup>6</sup> Initially, the training and qualification of our nurses present in Primary Care in the area of mental health, it became difficult due to the reduced initiative of professionals to seek the knowledge and practices that enable their care efficiently and effectively. Many professionals were "outdated" after the psychiatric reform movement and did not follow the real changes it brought.<sup>7</sup>

In this sense, it is very important to understand how nurses care for patients with mental disorders today and what strategies they use for their own professional improvement. Thus, it will be possible to outline strategic actions directed to these professionals in order to apply adequate teaching methods and consistent with the reality of health services, leading to the improvement of mental health actions in the ESF.

Based on the above, this study aims to evaluate the scientific production on the care of mental health nurses in the family health strategy from the implementation of matrix support, as well as to identify the challenges to nursing care in this sector.

## Method

This is a narrative review of the literature conducted in October 2020. For this research, the following steps were followed: establishment of the hypothesis and objectives of the review through the establishment of a fundamental question; definition of descriptors and keywords to guide searches; definition of the information to be extracted from the selected articles; presentation of the results and discussion.

Based on this type of review, the following question was outlined: How does mental health nurses care in the ESF be provided from the implementation of matrix support? What are the challenges when nursing care in psychic processes in the ESF?

Data collection was performed in the Latin American and Caribbean Literature databases in Health Sciences (LILACS) and in the Scientific Electronic Library Online (SCIELO) and Virtual Health Library (VHL) libraries, as well as in official documents of the Ministry of Health (MS). For the search, the following descriptors registered in the Descriptors in Health Sciences (DECS) were used: Mental Health; Matrix Support; Training of Nurses; Family Health.

For the selection of scientific productions, the following inclusion criteria were used: materials published in Portuguese, between 2007 and 2018, available in full and online. Articles that did not directly address the theme in question were excluded.

Initially, an exploratory reading of the titles and abstracts was carried out to recognize the articles that met the eligibility criteria. Then, the previously selected articles were read in full, and they were again evaluated for inclusion and exclusion criteria.

After the selection of the final sample, the following variables were extracted from the publications and composed the sinoptic picture of this review: year of publication, webqualis of the journal, journal of publication, objective, results and conclusions.

For data analysis, the thematic content technique was used, and thematic categories were established from the repeated and exhaustive reading of the selected references. Quantitative variables were described in absolute (n) and relative (%) frequencies.

## Results and Discussion

In the initial stage of our research, we had the survey of 19 articles, of which 8 were excluded, they are those that did not directly address the theme in question, which led to a final sample of 11 dissertations. Table 1 presents the synthesis of articles included in the literature review according to the title, database, year of publication, recommendations/conclusions.

**Table 1** - Presentation of the synthesis of articles included in the literature review according to title, database, year of publication, recommendations/conclusions. 2020.

Title	Journal	Webqualis	Year	Results	Conclusion
Nurses' knowledge about matrix support in the network of psychosocial care. <sup>8</sup>	Revista do instituto de ciências da saúde (UNIP)	B4	2018	Nurses know the Matrix Support of the Psychosocial Care Network according to their practical experiences within the routine of the unit, on the other hand, the theoretical-legal support of Matrix Support is unknown. This was evidenced by different perspectives and fields of reflection due to the complexity of the process faced in the daily life of these professionals.	The nurses of the ESF need to be trained to obtain better knowledge about the mental health care network so that they understand more clearly the nature interprofessional work
The insertion of psychiatric nurses in the mental health matrix support team. <sup>9</sup>	Revista Eletrônica Saúde Mental Álcool E Drogas	B2	2008	When reflecting on this experience, it was inpatients with greater resolution of cases and less stigma regarding the approach to people in psychological distress. It is also needed to mature the project for further research on the results of this project.	It is important that there is continuity of the project for further evaluation, for better reflection and analysis about the insertion of nurses in basic mental health actions, since no such experience report was found for an analysis or comparison.

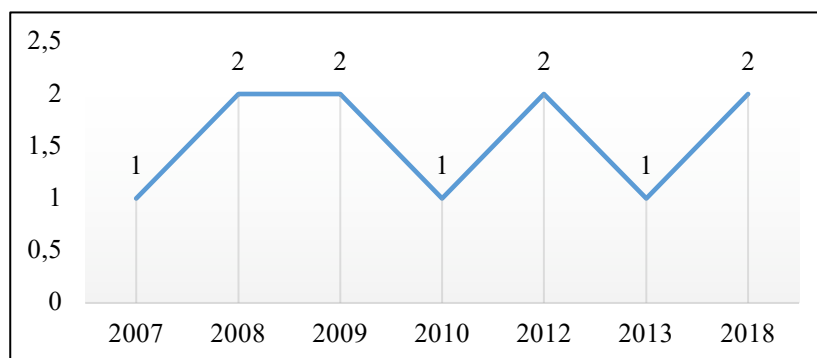
Matrix support in mental health between CAPS and Family Health: tread possible paths. <sup>10</sup>	Psico-USF	B2	2013	The results of this study pointed to the difficulty of THE teams in addressing mental health cases, which were associated with reduced training in the area and insufficiencies in training, generating fear among professionals in relation to people in severe psychological distress and insecurity in care. They also indicated prejudice and difficulties in identifying mental health situations.	It is concluded that there is a need to strengthen mental health in THE, with investments in continuing education, in the establishment of indicators and in the integration between CAPS.
Matrix support in Mental Health in primary care: the effects on the understanding and case management of community health workers. <sup>11</sup>	Interface	B1	2018	The CHA reports the changes caused by mS, comparing reactions and postures of the ESF before and after the implementation of this methodology. Two attitudes initially identified were the fear of madness and the non-recognition of mental health demands within the scope of the team's responsibility.	Matrix support produced changes in the understanding and practice of professionals, as well as organizational changes in the FFU and its relationship with the service network, evidencing matrix support as an effective intervention in the qualification of mental health care.
Mental health and primary health care: analysis of an experience at the local level. <sup>5</sup>	Ciência & Saúde Coletiva	B1	2009	The results of this study showed that, in mental health actions in PHC, the biomedical model of health care organization, the psychedencing of care, the bureaucratization of the work process and the centering on intramural actions still predominate.	The ESF seems to be a technology for the production of health care for people in psychological distress to be explored and designed as a possibility of community mental health care.
Overload generated by living with the schizophrenic patient: nursing building family care. <sup>12</sup>	Revista Eletrônica Saúde Mental Álcool e Drogas	B2	2012	High burdens were found in the daily routine of the family member and intense concussion of their mental health, being essential that nursing includes families in the treatment, reducing the burdens	Considering the family nucleus, the main means of living with schizophrenia patients, the family assumes greater responsibilities, which undeniably entails changes in daily activities, budget and greater concerns, generating burdens to the main caregiver.
Nurses and mental health actions in basic	Revista Eletrônica de Enfermagem	B1	2008	Nurses report that there is no specific mental health care; the activities are restricted to	We conclude that it is fundamental for the integrality of



health units. <sup>7</sup>				referral to specialized service or to counseling performed in the face of a crisis or decompensation of the patient.	PHC the establishing an interface with the actions mental health.
Mental health and nursing in the family health strategy: how are nurses working? <sup>13</sup>	Revista da Escola de Enfermagem da USP	A2	2010	According to the statements, it was observed that there are no activities for patients with mental disorders in the basic network, and that the reduced training of nurses emerges as a challenge to be overcome.	It is necessary to have professional qualification at all levels of care that interact with this population, not forgetting articulated actions of promotion, at the level of public policies and prevention in partnerships between the FUS and schools and entities in the neighborhood.
Mental health care in CAPS in the understanding of professionals. <sup>14</sup>	Ciência e Saúde Coletiva	B1	2009	The results show that care for these professionals covers aspects that go beyond the biological, including also the family and society. We noticed that the service team is broadening their view of mental health, when they understand psychosocial rehabilitation as the center of care.	The proposal for care for patients with mental disorders within the CAPS is based on actions aimed at their psychosocial rehabilitation, in the search for autonomy and citizenship of these people.
Articulation between Psychosocial Care Centers and Primary Health Care Services. <sup>15</sup>	ACTA Paulista de Enfermagem	A2	2012	It was observed that this articulation is basically structured in the supervision and training of the teams and in a reference and counter-reference system, often masked under the logic of referrals. However, these actions are more suggestive, referred to in the documents as objectives, than properly translated into actions as a logic of concrete operationalization of these, in the daily practice of services.	In fact, attention to the complexity of the demand in mental health is dependent on a gradual construction of articulations guided by the co-responsibility of the different services that make up the care network.
Mental Health and Primary Care: the necessary bonding and dialogue. <sup>16</sup>	-	-	2007	Mental health teams supporting THESA need to incorporate supervisory actions, joint care and specific care, in addition to participating in training initiatives.	The Primary Care Information System (SIAB) is in reformulation process, being strategic for the evaluation and health planning.

Among the selected articles, there was a predominance of those published in the journals *S and Collective Health* (20%) and *Electronic Journal Mental Health Alcohol and Drugs* (20%), with Qualis CAPES B1 (40%), B2 (30%) and A2 (20%), which indicates the publication of the selected references in journals of good scientific quality in the nursing area. In addition, there was a predominance of publications in 2008 (10%), 2009 (10%), 2012 (10%) and 2018 (10%) (Figure 1).

**Figure 1-** Distribution of scientific articles by year of publication. 2020.



After reading the selected articles, 05 (five) thematic categories were observed: Access to the Family Health Strategy in the promotion of Mental Health; The knowledge of nurses about the main mental problems; The preparation to act in the care of mental patients; Mental Health and Psychiatric Reform and The Family and Psychosocial Care Centers as support points.

### **Mental Health and Psychiatric Reform**

The psychiatric reform aims to move the focus of the psychic suffering of people and the community, instituted by psychiatry. The objective of this process is to build a new social status for people affected by health and mental disorders, seeking autonomy and generating meaning in society, although all respondents expressed support for the reform, but all pointed out the deficiencies and the need for adaptation in various sectors.<sup>21</sup>

In order to gradually change the nursing care highlighted in patients admitted to psychiatric hospitals, the WHO proposed a community-based mental health care model and incorporated it into regional and daily care services.<sup>3</sup> This means developing a series of services close to the person's place of residence, offering interventions for symptoms of disability, specific and personalized treatment and care, due to meeting the various needs of users, being a home and outpatient care.<sup>22</sup>

These services should aim at releasing users, improving their independence in self-care, identifying resources and establishing healthy social alliances. The interviewees of the articles selected and analyzed see psychiatric reform as a form of individual humanization and reintegration into society, but consider it a great challenge for health professionals to support this clientele in the community.<sup>20</sup>

In the case of mental disorder, there is usually vulnerability and termination of social ties, in addition to restricting the exercise of social roles and

enjoyment of care rights, they are also excluded from the labor market, family, culture and politics, ultimately with personal strangeness.<sup>2</sup>

Individual reintegration into society is an essential and necessary condition for the real occurrence of the reform of the concept of mental illness. In recent years, the National Mental Health Policy has focused on efforts to protect psychiatric reform, as it influences ideals of an effectively egalitarian and humane society, based on the principles of freedom, equality and fraternity.<sup>21</sup>

According to the recommendations of the psychiatric reform movement, the asyllum model, in which it excluded and segregated people in psychological distress, underwent a set of changes, in order to transform the asylum model, for the biopsychosocial model, within the perspective of care. Given that treatment centered on mental illness in nursing homes in the context of mental health care not only has consequences for the person, since it makes him excluded from interpersonal relationships and restricts his daily activities, but also brings consequences for the community and society.<sup>14</sup>

### **Access to the ESF in the promotion of Mental Health**

From the articles found, it can be observed how people with mental disorders configure the services of the ESF. THE ABS is the gateway to health services and receives people who seek to solve their physical, psychological or social problems.<sup>5</sup>

The ESF is the main form of action of Primary Health Care and, because there is a spontaneous demand in the search for its services, it is necessary to prepare to meet its users.<sup>12</sup>

The active search for patients with mental disorders is the second way to enable the obtaining of THE SERVICES, which will lead to planning needs. Thus, it can be said that caring for people with mental disorders and their families in the ESF is a complicated situation. Therefore, it is up to the nursing professional to make decisions and trigger the whole process of mobilizing resources for solutions. It is necessary to develop skills among nursing professionals and others in the PHC department to understand; do: listen; involving patients and family members. Thus, creating the process of establishing emotional bonds and taking responsibility for people with problems.<sup>17</sup>

Mental health measures in PHC should follow the model of the nursing network, be based on municipalization, and have horizontal actions and other specific policies that seek to establish bonds and support.<sup>18</sup>

### **The knowledge of nurses about the main mental problems**

In PHC, the knowledge of the professional nurse about mental disorders is fundamental, because this service is the first reference for these patients. From the interviewees' answers. Among severe mental illnesses, schizophrenia and delusional disorders represent the highest proportion, followed by affective disorders, epilepsy, mental retardation, neurological diseases, alcoholism and diseases without accurate diagnosis.

Depressive episodes are described by complaints of bad mood, loss of interest, pleasure and decreased energy, which leads to increased fatigue and decreased activity.<sup>16</sup>

Schizophrenia is the disease that presents the greatest burden on care, since it affects people with serious changes in thoughts, feelings and wills. Many of them are distant from the external reality (autism), which brings great emotional and economic pressure to patients, their families and society. In addition, patients with schizophrenic disorders tend to overestimate the degree and possibility of danger in a given situation and underestimate their ability to deal with perceived threats to their physical and mental health.<sup>12 16</sup>

Thus, it is important to highlight that nurses should be able to distinguish the types of emotional suffering present in their domain area, in view of the improvement in the matrix support plan, provided to the community.<sup>19</sup>

It is very relevant to distinguish between neurosis and psychosis, because distinguishing one from the other is the key to determining the patient's resolution. Neurosis is a mental state defined by the maintenance of reality, but its symptoms bring pain and the patient cannot accept it. Behavior does not seriously violate social norms, such as other mental illnesses. On the other hand, psychosis is unable to discern the reality of fantasy. In clinical practice, it is called psychosis, when a patient presents symptoms such as delusions, disorganized speech, hallucinations, mental confusion and the like.<sup>16</sup>

These same authors draw attention to the percentage of patients with severe psychoses who seek PHC services and portray that, if these cases were treated and monitored by prepared professionals, a hospitalization in a psychiatric hospital would be dispensable. Therefore, it is possible to understand that most of the nurses surveyed do not have satisfactory knowledge to perform effective care actions and plan care for these patients, even if they know certain diseases.

### **The preparation to act in the care of mental patients**

Together with the articles selected and elected for use in the present study, most of the interviewees responded positively. One participant mentioned that previous training is a method of preparation to deal with patients with mental disorders, as well as, the author informed the need for mental health training in PHC, which confirmed the author's statement.<sup>17</sup>

Professionals should be instructed to develop and carry out strategies so that the patient, his family and the community learn to live with the diagnosed disease(s), using the discontinuation of prescribed medications and the performance of supportive therapies in the treatment, however, so that this new method of learning occurs when the practice and daily knowledge of the team become an important basis for learning (in this case, theoretical knowledge can be mobilized). Formative skills allow subjects to construct and rebuild knowledge, skills and the possibility of developing attitudes.<sup>12</sup>

Nurses are generally more heavily involved in the bureaucracy of the service. The reduction of personnel in the unit ends up leading to the overload of professionals, who have to remove users who are entitled to comprehensive care.<sup>20</sup>

Nurses need to be prepared to develop comprehensive and holistic care with all types of users and offer comprehensive human support. If professionals do not seek to expand the concept of care to patients in psychological distress and expand the possibilities and potentialities of users, family members,

professionals and communities. They will continue to face problems in developing their practices, depriving people of access to solutions.<sup>12</sup> It is noteworthy that only with the development of qualified and multiprofessional joint actions, family support, group activities, provision of reference and counter-reference services and professional qualification, it is possible to treat patients with mental disorders as non-hospital treatment and their resettlement.<sup>19</sup>

### **The family and psychosocial support centers as support points**

For families to participate effectively in the reintegration of people with mental disorders, they need to be able to do so and receive high quality support by health professionals, especially nurses, because they are professionals of the multidisciplinary health team more active in the community. However, for this, nurses should try to understand the perspective of families about the unique experience of living with sick relatives, which will give them another understanding about this type of care to be made available. Currently, there is a consensus that families can share their problems with adequate support and guidance, and become allies for the deinstitutionalization and social rehabilitation of patients with mental disorders.<sup>5</sup>

Because of family support, psychosocial support centers (NAPS) are considered an alternative method of treatment for patients with mental disorders, because they aim to offer a treatment that combines clinical follow-up and social reintegration assistance with work, leisure and exercise.<sup>23</sup>

The NAPS stands out in the context of health policy and represents one of the great advances of psychiatric reform, since they constitute the main strategy of the Ministry of Health. By playing the role of articulators of the community mental health care network, together with other plans and actions, they reversed the intensive care model in psychiatric hospital care.<sup>21</sup>

These same authors also found that NAPS works with an interdisciplinary team, and the activities developed in this area are very diverse, in addition to drug therapy, offers group and personal care, therapeutic and creative workshops, sports and recreational activities, is considered the main treatment.<sup>21</sup>

Therefore, there is a direction, for a more humanized care model, replacing psychiatric hospital services, which aims at intervention focused on mental illness, because it emphasizes the patient in its uniqueness, history, culture and life. Given that the ESF is the closest link between users who demand this care and their homes/community, and the nurse is the professional who is first requested as a reference.<sup>15</sup>

## Conclusion

Although professionals claim to be prepared to deal with people with mental disorders and know the main disorders, as well as their symptomatology, it is perceived that there is reduced knowledge with regard to what is related, which impact on the effectiveness and quality of care provided, to people with mental disorders. Retraining and residency courses are considered a form of preparation, but the impossibility of dealing with these patients in the routines of the service is an obstacle to effective care.

It is essential that nurses who deal with these patients understand the history and current process of mental and psychiatric health reforms so that they can move their actions in the direction recommended, as described in the CAPS. Nurses are suggested to invite community professionals, families, alternative service agencies and other teams to welcome patients with mental illness, under voluntary or planned requests and active searches. Because the ESF is the closest link between the user who needs this care and their family/community, the nurse is the first professional to be referred and accessed.

Finally, despite the achievements already achieved through Law 10,216 of 2001, through psychiatric reform, there is still much to improve, emphasizing that, in addition to this area of activity being a challenge, there is a need for the involvement of all health professionals together with society, for a better quality of mental health care.

## Acknowledgment

This research did not receive funding to be done.

## References

1. Andrade FB, Bezerra AIC, Pontes ALF, Filha MOF, Vianna RPT, Dias MD, *et al.* Saúde mental na atenção básica: um estudo epidemiológico baseado em foco de risco. *Rev bras enferm.* 2009;62(5):675-80.
2. Veloso TMC, Souza MCBM. Concepções de profissionais da estratégia saúde da família sobre saúde mental. *Rev Gaúcha Enferm* 2013;79-85
3. Organização Mundial de Saúde – OMS. Relatório sobre a saúde no mundo 2001. Saúde mental: nova concepção, nova esperança. Suíça: Organização Mundial de Saúde; 2001.
4. Jorge MSB, Diniz AM, Lima LL, Penha JC. Matrix support, individual therapeutic project and production in mental health care. *Texto Contexto Enferm.* 2015;24:112-20

5. Silveira DP, Vieira ALS. Saúde mental e atenção básica em saúde: análise de uma experiência no nível local. *Ciênc saúde coletiva*. 2009;14(1):139-48.
6. Castro CP, Oliveira MM, Campos GWS. Matrix Support in the SUS of Campinas: how an inter-professional practice has developed and consolidated in the health network. *Ciênc Saúde Coletiva*. 2016;21
7. Caixeta CC, Moreno V. O enfermeiro e as ações de saúde mental nas unidades básicas de saúde. *Rev Eletrônica Enferm*. 2008
8. Huller, Carolina *et al*. Conhecimento dos enfermeiros acerca do apoio matricial na rede de atenção psicossocial. *Health Science Institute, São José - SC*, p. 115-132, 17 jul. 2018.
9. Hirata, Marcos *et al*. A inserção do enfermeiro psiquiátrico na equipe de apoio matricial em saúde mental. *Rev. Eletrônica Saúde Mental Álcool Drog.*, Ribeirão Preto - SP, v. 4, n. 2, p. 89-110, 26 ago. 2008.
10. Minozzo, Fabiane *et al*. Apoio matricial em saúde mental entre CAPS e Saúde da Família: trilhando caminhos possíveis. *Psico-USP, Itatiba*, v. 18, n. 1, p. 56-80, 17 abr. 2013.
11. Amaral CEM, Torrenté MON, Torrenté M, Moreira CP. Matrix support in Mental Health in primary care: the effects on the understanding and case management of community health workers. *Interface* 2018;22(66):801-12.
12. Gomes MS, Mello R. Sobrecarga gerada pelo convívio com o portador de esquizofrenia: enfermagem construindo o cuidado à família. *SMAD, Rev. Eletrônica Saúde Mental Álcool Drog* 2012
13. Ribeiro LM, Medeiros SM, Albuquerque JS, Fernandes SMBA. Saúde mental e enfermagem na estratégia saúde da família: como estão atuando os enfermeiros? *Rev esc enferm USP* 2010
14. Mielke FB, Kantorski LP, Jardim VMR, Olschowsky A, Machado MS. O cuidado em saúde mental no CAPS no atendimento dos profissionais. *Ciênc saúde coletiva*. 2009;14(1):159-64.
15. Chiavagatti FG, Kantorski LP, Willrich JQ, Cortes JM, Jardim VMR, Rodrigues CGSS. Articulação entre Centros de Atenção Psicossocial e Serviços de Atenção Básica de Saúde. *Acta paul enferm*. 2012;25(1):11-7.
16. Brasil. Ministério da Saúde. Secretária de Atenção à Saúde. Saúde Mental e Atenção Básica: o vínculo e o diálogo necessários. Brasília: Ministério da Saúde; 2007.
17. Bardin L. Análise de conteúdo. Lisboa: Edições 70; 2009.
18. Neves HG, Lucchese R, Munari DB. Saúde mental na atenção primária: necessária constituição de competências. *Rev Bras Enferm*. 2010;63(4):666-70.
19. Nunes Filho EP, Bueno JR, Nardi AE. *Psiquiatria e Saúde mental: Conceitos Clínicos e Terapêuticos Fundamentais*. São Paulo: Atheneu; 2005
20. Pinto AGA, Jorge MSB. Prática clínica em saúde mental no cotidiano do Centro de Atenção Psicossocial. *Cogitare Enferm*. 2009;14(2):217-26.

21. Leão A, Barros S. As representações sociais dos profissionais de saúde mental acerca do modelo de atenção e as possibilidades de inclusão social. *Saude soc.* 2008;14(1):95-106.
22. Matos BG, Orichio APC, Mendonça VF. Residência Terapêutica: Um modelo alternativo de atendimento aos pacientes psiquiátricos. *R pesq: cuid fundam [Internet]*. 2010;2(ed.Suppl.):410-2.
23. Kantorski LP, Wetzel C, Olschowsky A, Jardim VMR, Coimbra VCC, Schneider JF, *et al.* Avaliação qualitativa no contexto da reforma psiquiátrica. *SMAD, Rev. Eletrônica Saúde Mental Álcool Drog* 2010

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