

PSYCHOLOGICAL SUPPORT OF NURSES TRAINING FROM THE POSITION OF RESILIENCE

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Abstract

The article highlights the results of theoretical analysis of scientific literature and the study of peculiarities of nurses' professional development in the course of their professional training. A number of problems have been outlined, which indicate the need to develop resilience of this category of specialists dealing with severe somatic patients and providing appropriate socio-psychological conditions in the process of their professional training.

The aim of the article is to substantiate the overall strategy of the content and objectives of the program for the development of resilience of future nurses dealing with severe somatic patients. In the context of our study, a diagnostic set of methods is defined, which is based on the need to comply with the basic psychometric requirements for psychodiagnostic tools, as well as the possibility of applying methods for the group form of conducting. An alternative program for the development of resilience of future specialists in "Nursing" deals with severe somatic patients, in which the psychological component is substantiated, as such, which will promote the development of stability and stress resistance of nurses in situations of different production complexity. Experimental data are presented, which confirm the need to develop this ability in nurses throughout professional training. The practical significance of the study is to develop and test a comprehensive psychological program for the development of resilience of future nurses in working with severe somatic patients. The obtained results, developed psychodiagnostic and corrective techniques, as well as training sessions can be implemented in practical classes on the basics of nursing, basics of psychology and interpersonal communication, nursing in palliative and hospice care, nursing ethics and deontology, occupational psychology, psychology educational institutions that provide professional training for future nurses. The resilience development training program can be used in the educational process aimed at training nurses, as well as in advanced training courses during direct practical activities for continuous professional development.

Keywords: resilience, future nurses, psychological resilience, stress resilience, psychological program.

Introduction

The increase in the pace of life, growth of information, intensification of work in modern world increase the requirements for specialists whose profession is related to people. The work of nurses is no exception, since they by

virtue of their functional responsibilities are constantly in the area of high professional responsibility due to the danger of difficult experiences associated with unexpected work situations, uncertainty of conditions, physical and psychological stress, and sometimes

overload. The current situation in the globalized world, the pandemic of coronavirus infection, specially focuses on the working conditions of medical specialists. This was stated by UN Secretary General Antonio Guterres, who called on governments, society and health authorities to immediately address the mental health needs arising from the coronavirus pandemic, warning that COVID-19 could provoke a crisis in this area, and noted that health workers need special help and support nowadays.

Health care reform in Ukraine, updated requirements and public attitudes to nursing practice indicates the need for a new generation of health workers with a high level of resilience in carrying out professional activities in situations of varying production complexity. The International Labor Organization ascertains in its recommendations that today the profession of a nurse is one of those that is inherently stressful.

The aim of the article is to substantiate the overall strategy of the content and objectives of the program for the development of resilience of future nurses dealing with severe somatic patients.

Theoretical background

It was established that nursing profession is classified as particularly sensitive to different types of stress, characterized by high emotionality, significant mental and physical stress and overload, dissatisfaction with financial situation, special interaction with patients, doctors, colleagues/members of the medical team, potential propensity to burnout. It has been revealed that more than 40 percent of nurses suffer from physical, emotional or mental exhaustion and have characteristic signs of emotional burnout (D. Sieg, 2015). This requires

constant and maximum mobilization of the nurse's own resources and necessitates the formation of protective factors that would support the healthy and stable psychological functioning of these professionals.

Anderson G. and co-authors (G. Anderson, M. Black, J. Collins, A. Vaughn, 2019) provide data of Canada of Public Health and Safety Personnel (PHSP), that 44.5% of respondents have at least one manifestation of mental health disorder (eg, anxiety, depression, suicidal ideation, post-traumatic stress disorder) associated with their stressful work activities.

The ability to overcome or recover from the effects of stress and turn it into a positive life and professional experience is called resilience. Numerous foreign studies emphasize that resilience helps nurses adapt to the difficult physical, mental, and emotional nature of their profession (F. Cameron, S. Brownie, 2010). Researchers G. Manzano-Garcia & J.C. Ayala-Calvo (G. Manzano-Garcia, J.C. Ayala-Calvo, 2012), who involved 983 nurses in the study, claim that resilience is a major factor that protects against emotional exhaustion. Resilient nurses are better able to respond to stress, manage and avoid negative impacts while maintaining their own well-being.

Nurse resilience is the ability to accurately perceive and adequately respond to stressful situations (J. Arzouman, 2015). A high degree of resilience helps nurses cope with stressful health conditions and minimizes moral stress that causes emotional exhaustion and burnout. A similar understanding of nurse resilience is expressed by the American researcher D. Sieg and emphasizes that resilience is the ability to accurately perceive and adequately

respond to stressful situations not only during a crisis, but also during the daily performance of professional activities. With the uncertainty in connection with the reorganization of health care, nurses resilience is more important than ever, D. Sieg says (D. Sieg, 2015).

The need to form the ideas of future nurses about themselves as equal subjects of interaction in the triad "doctor-nurse-patient", development of skills and abilities, as well as personal qualities necessary for mid-level nurses to realize their self-worth as individuals and professionals, strengthening self-confidence, accepting their limitations and resources, developing stress resistance and willingness to act in difficult professional situations, to maintain constructive interaction with participants in the treatment process are also relevant.

In the context of the study, data confirming the need for targeted training of future nurses to develop their resilience in critical situations of work with seriously ill people and their relatives, while adhering to ethical standards and maintaining emotional balance is of a great interest. These are some studies by G. McDonald et al., R. Maunder et al., J. Gerhart et al., S. S. Chesak et al., M. Mealer et al., M. Earvolino-Ramirez, M. Mcallister.

Theoretical analysis of the literature and practice of professional activity of nurses, conducted by the authors, have led to the assumptions about the insufficient level of resilience in a large number of nurses, which may be caused by the lack of special psychological training for the development of this quality, and insufficient scientific and methodological development of the content of personal training in the process of professional

development of nurses in general, indicating the need to develop a special program for the development of resilience in working with severe somatic patients in the process of professional development of future nurses.

The results of theoretical analysis of scientific literature and the study of peculiarities of nurses' professional development have allowed to identify a number of educational problems necessary for the development of resilience of this category of professionals.

The first group of problems related to the direct impact on the formation and development of resilience includes the limited theoretical and methodological development of the process of formation of this professionally important quality of medical workers. It should be noted that today in the domestic psychological scientific field there is a limited number of scientific studies related to the development of resilience, however, more relevant consideration was given to tangible, sometimes synonymous concepts, such as "stability", "sustainability", "flexibility", "reproducibility", etc. which, in our opinion, do not sufficiently reveal the essence and specificity of this psychological phenomenon of "resilience".

Researchers K. Pivtorak and I. Fedzhaga (K. Pivtorak, I. Fedzhaga, 2011) stated the limited components of psychological, pedagogical and organizational and methodological conditions for the development of resilience of medical professionals, both during training and in the process of professional practice. There is a lack of research and teaching materials, textbooks, manuals, developing

technologies that would represent active forms and methods of resilience formation. The question of psychological resilience of nurses dealing with severe somatic patients remains virtually uncovered.

The second group of problems is related to the training of medical staff. Modern Ukrainian medical school whilst training medical professionals during the study of somatic pathology focuses mainly on changes of physical condition of a patient, underestimating the emotional, psychosocial and spiritual condition of the patient, their impact on the disease and its results. Limited awareness of clinical specialists with changes in the psychological sphere of a person does not allow to adequately respond to them, which can negatively affect the treatment process, on the relationship in the system "medical worker-patient" and on the psychological integrity of the personality of the medical specialist.

The conducted analysis shows that current professional training of future nurses does not take into account the need to develop their resilience for work with severe somatic patients and does not provide appropriate socio-psychological conditions. It is necessary to form the ideas of future nurses about themselves as equal subjects of interaction in the triad "doctor-nurse-patient", to develop skills and personal qualities needed by mid-level nurses to realize their self-worth as individuals and professionals, strengthening self-confidence, accepting their limitations and resources, developing stress resistance and willingness to act in difficult professional situations, to maintain constructive interaction with patients in the treatment process.

Methodology

Sample. The main directions of our research were the theoretical substantiation and empirical verification of levels and factors of development of resilience of future nurses in work with severe somatic patients, based on the authors' component-criterion model. The study involved 386 respondents from different regions of Ukraine – future nurses, students majoring in "Nursing".

Methods. To form the nurses resilience, it is necessary to identify the need for it in this group of specialists and the psychological prerequisites for this, the understanding and interpretation of the concept of "psychological stability" by future nurses.

In the context of our study, a diagnostic set of methods is defined, which is based on the need to comply with the basic psychometric requirements for psychodiagnostic tools, as well as the possibility of applying methods for the group form of conducting: "Motivational profile of the individual" (S. Richie, P. Martin, in the author's modification); "Scale of basic beliefs" (R. Yanov-Bulman, adaptation by O. Kravtsova); Questionnaire "Psychological resilience of nurses dealing with severe somatic patients" (O. Shevchenko); "Method of reflexivity diagnosis" (A. Karpov); Methodology "Indicator of coping strategies" (D. Amirhyan, adapted by N. Syrota and V. Yaltonsky); "Stress resilience self-assessment test" (S. Cowhen and G. Willianson); "Analysis of problem situations of the nurse's work with severe somatic patients" (O. Shevchenko); "Communicative tolerance" (V. Boyko); "Diagnosis of rigidity" (G. Eisenk); Methodology "Personal readiness for change" (A. Rodnik et al., adaptation by

N. Bazhanova, G. Bardier); 'Short scale of resilience' (B. Smith et al., adapted by O. Shevchenko for nurses).

Results

Given the importance of developing the resilience of future nurses in working with severe somatic patients to increase the efficiency of their professional activities and given the fact that this quality is a dynamic characteristic of the individual, which is formed and adjusted, we have developed and tested a program for the development of the studied quality of future nursing professionals in the process of their professional training.

The development of the experimental research program takes into account the selection of forms and methods aimed at the development of all components of resilience in work with severe somatic patients.

When developing the corrective component of the program for the development of the resilience of future nurses in working with severe somatic patients on the value-motivational component, the contradictory nature of the motivational-needs sphere is taken into account, as well as the ambivalent nature of basic beliefs, especially those relating to one's own worth and ability to manage life events.

Within the cognitive-reflexive component of resilience of future specialists in working with severe somatic patients, it was taken into account limited knowledge of the essence of the concept of resilience, barriers and factors of its development in the professional activity of a health worker, as well as insufficient level of reflectivity for a significant number of subjects.

The development of the operational component of resilience took into account the difficulties of future nurses in

choosing the optimal coping strategies in working with severe somatic patients, and the limited development of skills of rapid recovery in difficult professional situations.

In forming the content of the program for the development of communicative-regulatory component of resilience in working with severe somatic patients, the insufficient level of important professional quality of nurses was taken into account, such as acceptance of severe somatic patients, rigidity and personal unwillingness to act in unpredictable conditions and recovery from difficult situations.

Taking into account the problems of development of resilience of future nurses revealed in the previous stages of research and the principles and psychological conditions of development of resilience are singled out, the most optimal forms and methods of development of psychological readiness of nurses to work with difficult somatic patients were chosen as prerequisites for the development of their resilience: thematic group discussions, brainstorming, situational role-playing games, rapid diagnostics of individual indicators of resilience, psychogymnastic techniques, tasks for individual independent work, etc.

The content of the program for the development of resilience of future nurses in working with severe somatic patients is designed for 60 hours (of which – 45 classroom hours and 15 hours of independent work). The main form of its implementation was chosen as training, lasting 11 weeks. The study involved 55 students of Cherkasy Medical Academy, future nurses. Of these, the experimental group included 28 persons, the control group included 27 persons

from the same educational institution. Homogeneity of the experimental and control groups was ensured according to the initial data on the development of resilience and socio-demographic characteristics of the subjects.

The effectiveness of the implementation of the program for the development of nurses' resilience in terms of training was assessed by two evaluations before and after the experiment.

In *the experimental group*, as part of professional training, a program for the development of nurses' resilience in working with severe somatic patients in a training format was implemented. In *the control group*, the training of nurses was exclusively traditional and was carried out in accordance with the Industry Standard of Higher Education. Field of knowledge 1201 Medicine. Direction of training 6.120101 Nursing. Specialty 5.12010102 Nursing.

Evaluation of the statistical significance of the dynamics of indicators

of resilience of nurses in general, as well as its individual components before and after the formative experiment was carried out by the G-criterion of signs in both the experimental and control groups. In addition, the criterion χ^2 was used to assess the statistical significance of differences in the indicators of resilience between the participants of the experimental and control groups at the beginning and after the end of the formative experiment.

Comparative analysis of the results of the study of the resilience of the subjects from the experimental and control groups before and after the program showed a fairly strong positive dynamics of both the general level of resilience and its individual components in the experimental group ($r < 0.05$, $r < 0.01$). At the same time, no statistically significant differences were found in the control group during the time when the formative experiment lasted in the experimental group (Table 1).

Table 1. Distribution of study nurses by levels of resilience before (1 evaluation) and after (2 evaluation)

Groups of subjects	Levels of resilience, number of subjects in%					
	Low		Medium		High	
	I evaluation	II evaluation	I evaluation	II evaluation	I evaluation	II evaluation
EG	7,2	3,6*	60,7	39,3*	32,1	57,1*
CG	11,1	7,4	59,3	63,0	29,6	29,6

* – differences are significant at the level ($r < 0,05$)

As can be seen from Table 1, if before the beginning of the formative experiment in the experimental group a high level of resilience was found in 32,1% of the subjects, then after the experiment this number increased to 57,1%. At the same time, the number of

subjects with a low level of resilience decreased from 7,2% to 3,6% ($r < 0.05$).

As for the control group, the results of the first and second "evaluations" recorded only minor changes at medium (from 59,3% to 63,0%) and low (from 11,1% to 7,4%) levels, while the number

of subjects with a high level of resilience did not change (29,6%). In general, the differences between the indicators of I and II evaluations in the control group are not statistically significant.

Thus, it can be stated that during the approbation of the program of the formative experiment, the number of nurses with a high level of resilience significantly increased and the number with a low level decreased. As a result, the respondents of the experimental group differed in greater awareness of resilience and its importance in the work of a nurse, a strong value attitude to the development of resilience, the ability to constructive communication and self-regulation in working with severe somatic patients, and showing resilience in professional activities are significant.

Similar results have been found for the levels of development of all components of the resilience of future nurses, as evidenced by the results of a comparative analysis of the results of the study of the first (prior forming experiment) and second (after forming experiment) evaluations in the experimental and control groups, aimed at studying changes in the levels of development of the components of the resilience of the participants of the experimental group.

Thus, a comparative analysis of the levels of the value-motivational component of nurses' resilience in the experimental and control groups at the beginning and after the experiment was performed (Table 2).

Table 2. Comparative analysis of the levels of development of the value-motivational component of the nurses' resilience in the experimental and control groups at the beginning and after the experiment

Groups	Levels of value-motivational component, number of subjects in %					
	Prior forming experiment			After forming experiment		
	Low	Medium	High	Low	Medium	High
EG	25,2	54,0	20,8	3,6*	50,0*	46,4*
CG	25,9	59,5	14,6	22,2	59,3	18,5

* – differences are significant at the level ($r < 0,05$).

As can be seen from the data in Table 2, in the experimental group, statistically significant differences ($r < 0,05$) have been recorded between the results of the first (prior to the forming experiment) and the second (after the forming experiment) evaluations in the levels of development of the value-motivational component of nurses' resilience.

These are: a significant increase in the number of subjects with a high level (from 20,8% to 46,4%) and a decrease in the number of subjects with a low level of development of this component (from

25,2% to 3,6%). Such nurses have showed a desire to psychologically prepare for work with severe somatic patients, to develop psychological stability (elasticity, resilience), they have showed a mostly positive attitude to the environment and to themselves as medical professionals.

While the levels of the value-motivational component of the resilience of the participants of the control group between the results of the first (prior to the forming experiment) and the second (after the forming experiment) evaluation were statistically insignificant.

Regarding the dynamics of this component of resilience in the development of the cognitive-reflexive experimental and control groups at the beginning and after the experiment are results of the comparative analysis presented in Table 3. according to the levels of development of

Table 3. Comparative analysis of the levels of the cognitive-reflexive component of resilience in the experimental and control groups at the beginning and after the experiment

Groups	Levels of cognitive-reflexive component, number of subjects in%					
	Prior forming experiment			After forming experiment		
	Low	Medium	High	Low	Medium	High
EG	17,9	64,2	17,9	7,1*	42,9*	50,0*
CG	18,5	63,0	18,5	11,1	70,4	18,5

* – differences are significant at the level ($r < 0,05$)

From the data given in Table 3 it follows that the differences of the cognitive-reflexive component of resilience between the results of the first (prior to the forming experiment) and the second (after the forming experiment) evaluation in the control group are not statically significant. In the experimental group, on the contrary, an increase in the number of subjects with a high level of development of this component of resistance from 17,9% to 50,0% and a decrease in the number of subjects with a low level of development of this component from 17,9% to 7,1% ($r < 0,05$).

As a result, the experimental group had a higher level of awareness of the nature and psychological preconditions of

working with severe somatic patients, there was aware of the importance of resilience in the professional activities of nurses, and more than at the beginning of the forming experiment prone to reflection on the peculiarities of their own work with severe somatic patients and opportunities for the development of resilience during educational and professional activities, etc.

Similar tendencies were revealed as a result of a comparative analysis of the levels of development of the operational-activity component of resilience in the participants of the experimental and control groups at the beginning and after the experiment (Table 4).

Table 4. Comparative analysis of the levels of development of the operational component of the resilience of the participants of the experimental and control groups at the beginning and after the experiment

Groups	Levels of operational component, number of subjects in%					
	Prior forming experiment			After forming experiment		
	Low	Medium	High	Low	Medium	High
EG	7,1	50,0	42,9	3,6*	32,1*	64,3*
CG	11,1	48,1	40,7	7,4	51,9	40,7

* – differences are significant at the level ($r < 0,05$)

As follows from the data given in table 4, changes in the development of the operational component of nurses' resilience occurred in both the control and experimental groups, but in the experimental group they are statistically significant. Thus, the indicators of the high level of the operational component in the control group remained almost unchanged, and in the experimental group they increased from 42,9% to 64,3% of the subjects ($r < 0,05$).

The obtained results show that the

participants of the forming experiment developed the skills of quick recovery in difficult professional situations, showed the ability to choose the optimal coping strategies in working with severe somatic patients, etc.

In addition, the positive dynamics of the levels of the communicative-regulatory component of resilience in the experimental group at the beginning and after the experiment was recorded in comparison with the control group (Table 5).

Table 5. Comparative analysis of the levels of development of the communicative-regulatory component of the resilience of the subjects from the experimental and control groups at the beginning and after the experiment

Groups	Levels of communicative-regulatory component, number of subjects in%					
	Prior forming experiment			After forming experiment		
	Low	Medium	High	Low	Medium	High
EG	42,8	53,5	3,6	14,3*	53,6*	32,1*
CG	44,4	51,9	3,7	37,0	59,3	3,7

* – differences are significant at the level ($r < 0,01$)

Thus, Table 5 shows that the indicators of the communicative-regulatory component of resilience between the results of the first (prior to the forming experiment) and the second (after the forming experiment) evaluation in the control group practically did not change. And in the experimental group there was a significant increase in the number of subjects with a high level of development of the communicative-regulatory component of resilience (from 3,6% to 32,1%) and a decrease in the number of subjects with a low level of development of this component (from 42,8% to 14,3 %) ($r < 0,01$).

As a result, the experimental group was more willing to act flexibly in unpredictable conditions of communication with severe somatic

patients, to be tolerant in difficult situations of communication with severe somatic patients, patient to the displays of their disease, etc.

In general, it can be stated that the conducted comparative analysis of the results of approbation of the developed program testifies to positive changes in the displays of nurses' resilience.

Other reasons for this conclusion are given by the answers to the feedback survey, that was filled-in by the participants of the experimental group after the forming experiment. In particular, 72% of nurses from the experimental group rated the level of usefulness of participation in the training as high, and 28% – as very high. They noted that participation in resilience development training contributed to their

greater stress resilience, better understanding of the role of the nurse in working with severe somatic patients, awareness of the possibilities of rapid recovery in difficult situations of interaction with them. In addition, respondents indicated that participation in the training contributed to a better understanding of themselves and other people, helped to establish contact with them.

Almost all subjects from the experimental group indicated that they would use the acquired knowledge in the practice of professional activity, not only in working with severe somatic patients, but also in general with other patients.

Thus, the results of the program approbation confirmed its effectiveness in developing the resilience of nurses.

Discussion

The results of scientific research indicate a significant interest in the issue of emotional stability, mental and physical well-being of nurses and prevention of burnout.

However, the analysis of the data shows that the nursing resilience development programs described in the professional journals were used exclusively outside Ukraine (Australia, the United States, China, Canada, Turkey, etc.), had a point application in some institutions or departments (eg, children's oncology department, intensive care unit), for certain categories of nurses (for example, new nurses).

It is worth noting that the system of training nurses abroad has some differences from the Ukrainian, first of all, with its quite flexible organization. In many countries, health facilities have developed a psychological service that provides care, including assistance to health professionals and nurses in

particular. It would be useful to introduce programs in the health care facilities of our country where nurses could share their problems, feelings and thoughts, share experiences with other nurses who have similar problems, and develop common methods of solving these problems. Nursing professional self-government, associations, foundations and non-governmental organizations affiliated with nursing should be actively involved in the initiation and implementation of such projects.

At the same time, in the development of programs for the formation of resilience in nurses, including future ones, the work of researchers who studied this issue can be used. Each of them came to his|her own conclusions that can be used as a ready-to-use basis for such work.

Conclusions

The practical significance of the study is to develop and test a comprehensive psychological program for the development of resilience have developed psychodiagnostic and corrective techniques, as well as training sessions can be implemented in practical classes on the basics of nursing, basics of psychology and interpersonal communication, nursing in palliative and hospice care, nursing ethics and deontology, occupational psychology, psychology educational institutions that provide professional training for future nurses.

The resilience development training program can be used in the educational process aimed at training nurses, as well as in advanced training courses during direct practical activities for continuous professional development.

Conflict of interest. We argue that there is no conflict of scientific interest.

References

- Pivtorak, K. V. & Fedzhaga, I. V. (2011). Formuvannya osobistosti ta motivatsii navchannya studentiv medichnogo vuzu [Formation of personality and motivation of medical students]. *Medichna osvita*, 4, 28-31.
- Gerhart, J. et al. (2016). A pilot test of mindfulness-based communication training to enhance resilience in palliative care professionals. *Contextual Behav Sci.*, 5(2), 89-96. DOI: [10.1016/j.jcbs.2016.04.003](https://doi.org/10.1016/j.jcbs.2016.04.003)
- Anderson, G., Black, M., Collins, J. & Vaughn, A. (2019). Researching Resilience in Bachelor of Science in Nursing (BScN) Students. *International Journal for Cross-Disciplinary Subjects in Education (IJCDSE)*, 10 (3), 4098-4102. Electronic resource. Available at: https://www.researchgate.net/publication/338805506_Researching_Resilience_in_Bachelor_of_Science_in_Nursing_BScN_Students (date of application 20.02.2020).
- Arzouman, J. (2015). Got resilience? *MEDSURG Nursing*? 24(6), 377-436. Electronic resource. Available at: https://www.amsn.org/sites/default/files/documents/practice-resources/healthy-practice-environment/MSJ_ND_2015_Got_Resilience.pdf (date of application 02.11.2018).
- Cameron, F., & Brownie, S. (2010). Enhancing resilience in registered aged care nurses. *Australas J Ageing*, 29(2), 66-71. DOI: [10.1111/j.1741-6612.2009.00416.x](https://doi.org/10.1111/j.1741-6612.2009.00416.x).
- Maunder, R. G. et al. Computer-assisted resilience training to prepare healthcare workers for pandemic influenza: a randomized trial of the optimal dose of training *BMC Health Serv Res.*, 10, 72. DOI: [10.1186/1472-6963-10-72](https://doi.org/10.1186/1472-6963-10-72).
- Earvolino-Ramirez, M. (2007). Resilience: a concept analysis. *Nurs Forum.*, 42(2), 73-82. DOI: [10.1111/j.1744-6198.2007.00070.x](https://doi.org/10.1111/j.1744-6198.2007.00070.x)
- Chesak, C. C. et al. (2015). Enhancing resilience among new nurses: feasibility and efficacy of a pilot intervention, 15(1), 38-44. Electronic resource. Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25829879> (date of application 05.02.2018)
- Manzano, G. & Ayala-Calvo, J. C. (2012). Emotional exhaustion of nursing staff: influence of emotional annoyance and resilience. *International Nursing Review*, 59(1), 101-107. DOI: [10.1111/j.1466-7657.2011.00927.x](https://doi.org/10.1111/j.1466-7657.2011.00927.x)
- McAllister, M. (2013). Resilience: a personal attribute, social process and key professional resource for the enhancement of the nursing role. *Prof Infirm.*, 66(1), 55-62. DOI: [10.7429/pi.2013.661055](https://doi.org/10.7429/pi.2013.661055).
- McDonald, G., Jackson, D., Wilkes, L. & Vickers, M. H. (2013). Personal resilience in nurses and midwives: effects of a work-based educational intervention. *Contemp Nurse*, 45(1), 134-143. DOI: [10.5172/conu.2013.45.1.134](https://doi.org/10.5172/conu.2013.45.1.134).
- Mealer, M., Jones, J. & Moss, M.A. (2012). Qualitative study of

resilience and posttraumatic stress disorder in United States ICU nurses. *Intensive Care Med*, 38(9), 1445-1451. DOI: 10.1007/s00134-012-2600-6. Epub 2012 May 23.

Sieg, D. (2019). 7 habits of highly resilient nurses. Electronic

resource. Available at: https://www.reflectionsonnursingleadership.org/features/more-features/Vol41_1_7-habits-of-highly-resilient-nurses (date of application 10.01.2019).