Effects of Peer Support Group on Stress Level among First Semester Nursing Students

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Artikel info	
	Abstract. This study aimed to analyze the effects of peer support groups on stress level among first-semester nursing students. This study used a pre-post test quasi-experimental research design with a control group. The samples were 74 nursing students who were assigned to the intervention group and the control group. Data were collected using the instrument of DASS and analyzed using the Wilcoxon test. Results showed that in the intervention group, there was a significant difference in the stress levels before and after the intervention. Meanwhile, in the control group, there was no significant difference in the stress levels before and after the intervention. Peer support groups had a significant effect on reducing stress levels among first-semester nursing students. **Abstrak.** Penelitian bertujuan untuk menganalisis pengaruh dukungan kelompok sebaya pada tingkat stres mahasiswa keperawatan semester awal. Penelitian ini menggunakan desain penelitian kuasi eksperimen pra-posttest dengan kelompok kontrol. Sampel adalah 74 mahasiswa keperawatan yang ditugaskan untuk kelompok intervensi (n=36) dan kelompok kontrol (n=38). Data dikumpulkan menggunakan instrumen DASS dan dianalisis menggunakan uji Wilcoxon. Hasil penelitian adalah bahwa pada kelompok intervensi, terdapat perbedaan yang signifikan dalam tingkat stres sebelum dan sesudah intervensi. Sementara itu, pada kelompok kontrol, tidak ada perbedaan yang signifikan dalam tingkat stres sebelum dan sesudah intervensi. Dukungan kelompok sebaya memiliki efek signifikan pada pengurangan tingkat stres mahasiswa keperawatan semester awal.
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INTRODUCTION

The World Federation for Mental Health states that around 450 million people in the world experience problems of psychological disorders such as anxiety, stress, and major depression (WHO, 2004). A study on stress levels among nursing students at the University of Indonesia in 2010 revealed that 43.3% of students experienced a moderate level of stress (Ipek, 2015).

Academic activities, social problems with friends, longing for parents and ineffective time management to make decisions of both physical or mental forms can decrease the immune system and trigger explosive emotions. Prolonged stress experienced by individuals can lead to a decrease in the ability to adapt to stress (Ipek, 2015). Shaban's study on baccalaureate nursing students reported that there were 181 early year nursing students experiencing stress due to the adaptation process, transition from high school to university level and the academic problems that differed greatly from high school (Shaban, 2012).

The result of a previous study also indicates that mentoring can be used to increase the adjustment to university and ways of coping with stress in nursing students (Yukzel, 2019). Other research revealed that orientation has a positive influence participants by reducing stress and loneliness, and increasing self-efficacy and belonging. That too .It is useful to explore the benefits of a longer guiding experience to see if other benefits are achieved over a long period (June M, 2019).

The Peer support group is a form of support by a group of individuals who share common conditions or problems. Discussions in peer support groups may focus on the problems that are relatively similar by exchanging ideas about the problems or experiences related to emotions, happiness, and feelings so that positive coping abilities are achieved (Pulido, 2010; Demir, 2014). Understanding factors that influence students' commitment to an academic major is important to administrators as they work to improve the number of students enrolled in accredited nursing programs (Rellay and Collin, 2019).

A previous study reported that nursing students are able to improve their skills and knowledge through peer support groups in the first and second years. Therefore, the students are able to integrate knowledge and practice in the laboratory (Gray, Sherree at al., 2019). In teaching and elarning, peer groups can overcome emotions that cause stress in nursing students (Warshawski, 2018).

The peer support group is a WHO program that functions to improve the quality of mental health care and related services and to promote mental, intellectual and cognitive health throughout the world concerning quality rights using a participatory approach (Rn, 2011). A study by Abshere reported that peer support groups are an important aspect for helping nursing students to be free of the impact of stress. Continuous quality improvement strategies to increase nursing student peer supports may be needed (Palsson, 2017). In a study by Jessica and Denis, peer supports can help nursing students to be free of stress and have good performance (Fellow, 2003). Moreover, Paulla Elliot in 2016 reported that peer support group interventions gave positive effects on the nursing students who experienced stress due to academic and practice problems (Sheppard, 2018).This study aimed to analyze the effects of peer support groups on the level of stress among first-semester nursing students.

METHOD

This study used a pre-post test quasi-experimental design with a control group. The population is the overall research subjects under the study who meet the criteria that have been applied (Kelana, 2011). In this study, the population was 140 first-semester students in a nursing school in Indonesia. Samples are a group of individuals who are part of the population from which researchers directly collect data or make observations / measurements (Kelana, 2011). The samples in this study were 74 students who met the inclusion and exclusion criteria. The inclusion criteria included nursing students who were active at the academic year of 2017-2018, experienced a mild to moderate level of stress,

willing to be a respondent, and able to actively communicate. Meanwhile, the exclusion criteria were the students who were not present when the research process took place. The sampling technique employed in this study was purposive sampling, which describes a method of sample selection based on specific goals and objectives determined by the researchers (Kelana, 2011).

Research Process. The instrument for data collection tools in this study were questionnaires and peer support group intervention books. The questionnaire used in this study consisted of two parts. The first part describes the characteristics of respondents, which includes the group, age, type of stressor and gender, whereas the second part is the DASS (depression, anxiety, and stress scale) to measure the respondents' stress level. The standard operating procedure (SOP) of peer support group intervention was also used in this study. This SOP is adapted from a study conducted by Paulla Elliot on 200 nursing students undergoing clinical practices and experiencing academic problems (Elliot, 2016). This SOP consists of three steps. The first step is filling the practice-gap theory, namely the activity of providing a supplier of peer support group intervention by an expert with the aim of integrating the theory and practice into the intervention. The second step is peer support and emotional nourishment, namely activities to explore the feelings or problems faced by the students. The third step is the group organization and planning which is the activity of planning solutions to the problems faced by the students.

The validity of the research questionnaire was conducted to 30 students by Putri, a nursing student from Gajah Mada University. The validity is determined by comparing the r count value with the r table value. The df value for n = 30 is 28, so that, at the significance level of 5%, the r table value is 0.361. The results of 42 questions showed the value of r>0.361, so it could be concluded that all valid items in DASS are valid and can be used to measure the level of stress. The reliability test was carried out by a one-time test method for 30 students using the Cronbach alpha coefficient with the help of SPSS. The result showed a Cronbach alpha value of 0.951, which is greater than the r table value (0.361) so that it could be concluded that the DASS is reliable to use.

Prior to the study, ethical approval from the research ethics committee was sought. The researchers applied for research permission before it was granted. The researchers also prepared some facilitators to assist the respondents in solving the problem. The facilitators were second, third or fourth year nursing students. The criteria applied for recruiting the facilitators included the students who were older than the respondents in this study, had the experience of being first-semester students, and willing to be a research facilitator.

The peer support group interventions were given to the respondents in the intervention group for six meetings in three weeks; each lasted for 40-60 minutes. This intervention was given on Mondays, Tuesdays, and Fridays at 3-4 p.m. After the 6-meeting interventions, the respondents both in the intervention and control group completed the DASS questionnaire. Post data measurements were carried out in the intervention group and the control group using DASS. The researchers terminated the intervention by asking the respondents whether peer support group activities are useful in solving the problems.

The next stage is to answer the research objective, namely using univariate analysis to analyze variables descriptively according to the type of categorical data by calculating the frequency and percentage of each variable. Univariate data analysis of all categorical data is presented in the form of frequency distribution tables and interpreted based on the results obtained (Kelana, 2011). In this study, univariate data were classified into age and gender.

RESULT AND DISCUSION

Characteristics of Respondents

The samples of this study were 74 students, which consisted of 36 students in the intervention group and 38 students in the control group. The demographic data of the respondents were elaborated based on age and gender.

Table 1. Characteristics of the Respondents

Variable	Groups		p-value
	Control (%)	Intervention (%)	(X²)
Gender			
Male	2	2	1,000
Female	36	34	
Age			
< 18 years old	-	-	
18-22 years old	38	36	1,000
> 23 years old	-	-	

Based on the data in Table 1, it could be seen that the majority of respondents were female. There were 34 and 36 females students in the intervention group and the control group, respectively. In contrast, there were only two male students in the control and intervention groups.

Stress Levels among the First Semester Nursing Students in the Intervention and Control Groups

Table 2. Stress Levels among Nursing Students

Groups	Stress Level	
Intervention Group	Mild	21
	Moderate	15
Control Group	Mild	22
	Moderate	16

From Table 2, it can be seen that the majority of students in the intervention group before receiving peer support group interventions were at a mild level of stress. Table 2 also shows that the students who experienced mild and moderate stress were 21 and 15, respectively. Similarly, in the control group, the majority of students were at a mild level of stress. There were 22 and 16 students who experienced mild and moderate stress, respectively, in the control group.

Stressors in Intervention and Control Group

Table 3. Category of Stressors in the Intervention and Control Group

Group	Category	Control	Intervention	p-value (X²)
Pre Test	Academic	12	11	0.334
	Personal problem	5	6	0.582
	Parents	8	7	0.064
	Living place	11	11	0.123
	Conflicts with friends	12	13	0.117
	Conflicts with lecturers	4	7	0.000

Table 3 shows the results of the analysis using the Mann Whitney test. It can be concluded that there was no significant difference in the category of stressors between the control group and the intervention group, which included academic stressors, personal problem, parents, living place, and conflict with friends (p>0.05). However, there was a

significant difference in the category of conflicts with lecturers between the control group and the intervention group (p<0.05).

Stress Levels in the Control and Intervention Groups

Table 4. Stress Score in the Control and Intervention Group

Groups	Mean ±Standart Deviation (SD)		Median		P value
	Pre Test	Post Test	Pre Test	Post Test	
Control	18.29 ± 2.83	17.55 ± 4.84	17.50	17	0.157
Intervention	18.50 ± 3.47	10.59 ± 3.29	18	11	0.000

Table 4 shows the result of analysis using the Wilcoxon test. Based on Table 4, it can be seen that in the control group, there was no significant difference in stress levels between the pre-test and post-test (p=0.157 >α=0.05). Meanwhile, in the intervention group, there was a significant difference in stress levels between pre-test and post-test (p=0.000 >α=0.05). From these results, it can be concluded that the intervention had a significant effect on reducing stress levels in students.

Stress Levels Pre and Post Intervention

Table 5. Stress Levels in the Control and Intervention Groups

Group	Category	Control	Intervention	p-value (X^2)
Pre-test	Mild	22	21	0.983
	Moderate	16	15	
Post test	Mild	21	3	0.000
	Moderate	15	1	

Table 5 shows the result of data analysis using the Mann-Whitney test. It can be seen that there were no significant differences in the levels of stress before the intervention in the control group and the intervention group (p=0.983> α=5%). In contrast, after the intervention, there were significant differences in the levels of stress between the control and intervention groups (p=0.000 <α=5%), indicating that there was a significant change in the level of stress among students in the intervention group.

Discussion

Based on the data obtained from the respondents, it was revealed that in response to the items in DASS, 40 (52.8%) of respondents were easily angry/ agitated, 20 (27.2%) were easily offended/ over-reactive, and 16 (20%) were impatient. In the control group, before the intervention, 22 (57.8%) respondents were indicated to experience mild stress, and 16 (42.1%) respondents experienced moderate stress. Meanwhile, in the intervention group, 21 (58.33%) respondents were indicated to experience mild stress, and 15 (41.67%) respondent experienced moderate stress.

The results of a study conducted by Turner found that there was a large number of nursing students who experienced stress in various countries including the United States and Great Britain. The results also reported some stressors that students experienced, including academic, parents, and clinical practice problems. Such problems made the students unfamiliar with conditions in the hospital and with various patients that cause them to be unable to intervene (Chernomas, 2013).

A study conducted by Putri on stress in 140 Bidikmisi students from different academic years using the DASS questionnaire reported that 67.1% (94) students had normal stress levels, 29.1% (41) had mild stress level, 2.9% (4) had a moderate stress level, and 0.7% (1) student experienced a severe stress level. Most students who experienced stress were second-year students. It can be concluded that most Bidikmisi students had normal stress levels. This

study also mentioned that there were 32.9% (41) Bidikmisi students who experienced stress.

The results of the study in the control group showed that 20 (52.8%) students were irritable/agitated, 10 (27.2%) were irritable/over-reactive, and 8 (20%) were impatient. Furthermore, 8 (21.05%) students did not experience stress/normal, 16 (42.1%) students experienced mild stress, and 11 (28.9%) experienced moderate stress levels. In the intervention group, it was found that 2 (5.2%) students were irritable, 1 (2.6%) were irritable/over-reactive, 1 (2.6%) was impatient, and 34 (89.4%) did provide any response. Overall, there were 34 (89.4%) students with normal stress levels, 3 (7.8%) students with constant stress levels, and 1 (2.6%) student with a moderate stress level. No students were at severe stress levels.

The findings in this study are supported by Demir (2014) who conducted a study in the first year nursing students. The results showed that peer mentor groups could reduce stress in students due to academic problems, i.e., decreased performance, lack of confidence in the future time when being a nurse, economic problems, problems with lecturers, problems with friends, lecture accommodation problems and time management issues (Demir,2014)

A study conducted by Jane (2017) states that peer mentor groups could reduce stress and increased self-efficacy, sense of belonging, and prior loneliness to join mentorship. There were six mentors involved in the study; each helped the groups of problematic nursing students. After six weeks, the students could solve the problems and be free from stress. A similar study was conducted by Li (2010) to nursing students undergoing clinical practice in hospitals that experienced stress due to their inability to adapt to the hospital environment.11 The results of a study by Yilva Pallson found that peer mentoring could increase self-efficacy in the intervention group(Palsson,2017).

Regarding the SOP of this study, the first step was filling the theory-practice gap or giving materials to students. The materials were presented by Dr.Meidiana Dwidiyanti S.Kp., M.Sc about the process of support among peers in the groups. Support groups between friends greatly influence student behaviors. A good community will affect every

individual within the community, as peer support groups can influence a person's behavior (Fellow, 2003).

The second step was emotional nourishment or exploration of students' problems in groups assisted by facilitators. The results showed that four groups experienced academic problems, two groups experienced environmental problems, three groups experienced time management problems, and three groups experienced problems of being nurses as a profession.

Academic stressors are the problem that most students experienced at the beginning of the nursing study. This academic problem included the students' difficulty in understanding the materials delivered by the lecturers, as well as the students' difficulty in memorizing the contents of the materials. According to the students, the most difficult materials were anatomy and English language about anatomy. These conditions are in accordance with the results of a study conducted by Gurkova and Zelnikova (2018) which reported that the most common problems for nursing students are academic problems which include the students' limited understanding of the materials and skills. According to Yussof (2013), the problems that cause stress to health students in Malaysia are problems that occur in academics.

Environmental stressors (i.e., residence) are related to the problem that causes students to feel less comfortable to study. Some students reported that they sometimes found it difficult to study in their place of residence. These problems are the same as the problems faced by nursing students in India. A study conducted by Deb S (2016) reported that the environmental problems in which students live often cause stress since the students have to cope with the new environment as they have to deal with pressure between residents of the residence.

Time management is the next problem that the students experienced at the beginning of their study. The students stated that they could not divide their time between doing college assignments and organization activities. As a result, they had to work until late at night to complete the assignments. A similar situation was also experienced by Spanish students reported in a study by Maestro-gonzalez (2016), which stated that the stress in nursing students

is caused by the inability to do time management well. According to a study in Japan by Watson (2018), it was revealed that time management is a stressor that causes a decrease in values in nursing students (Watson, 2018).

Another problem that the students experienced was related to the interest or desire to be a nurse. Some students mentioned that the reason for enrolling the nursing department was because they failed to enroll at the faculty they wanted. The students mentioned that the salary of the nursing profession was not that high and the image of a nurse was still lacking. These problems are quite similar to the ones experienced by students in Taiwan as reported by Hui-Chen Tseng. The study which aimed to find out the perceptions of nursing students to their profession states reported that some nursing students did not like being a nurse as the salary is not too much and the image of nurses is still lacking (Tseng, 2013)

The next step of this study was planning the support group interventions provided by other group members. In this step, the group members gave feedback to other group members who experienced the same problem. The purpose was to solve the problem. The form of support given by the group members icluded emotional support, experience support, information support, and service support.

Emotional support was an input to overcome an uncomfortable environment that made the student angry and could not reveal his emotions to others. Other group members conveyed to group members experiencing problems that the students who experienced problems should be calm and communicated well to maintain each other's bonding environment. Thus, the students could maintain the feeling of each other. The emotional support intervention was applied by Hosein Ebrahimi (2016) in nursing students in India. It was reported that emotional support between friends could reduce student stress levels. Furthermore, emotional support interventions have been implemented in Africa. Martin (2015) stated that emotional support is very effective in overcoming the problem of nursing students in Africa.

Support experience is a solution given by other group members to overcome the problems from group members who are experiencing academic problems and time management. Group members stated that their experience to overcome academic problems, especially memorization of materials, was to try to find ways to make it easy to memorize, for example writing song lyrics using the study materials and studying in the morning after morning prayer. To cope with problems of time management, some group members suggest the use of small notes and writing a schedule of activities for the day so that they can make priorities. Such intervention was implemented by Gidman J (2013) in nursing students in the UK. Gidman J (2013) stated that support experience functions to increase the GPA of nursing students.

Information support described the solution given by group members to other group members who had problems of having no interest in being a nurse. A group member who did not have such problem stated that being a nurse was his dream since childhood as being a nurse was a way to help others as what he/she liked to do. Regarding the salary, it was just like a fortune from God. The results of the study by Birks (2013) reported that the experience of providing information support between nursing students could increase motivation to become a nurse.

Service support or service learning is advice provided by group members for the other members who experienced academic problems. Group members who did have problems were committed to helping if there are problems within the course. Service learning intervention was applied in a study by Victoria (2017) in Spanish nursing students. The results were very significant in which the students improved their knowledge, abilities, and attitudes and were able to solve academic problems.

The peer support group is a therapeutic process in groups that have the same problems to condition and strengthen groups and individuals in groups according to their problems (Elliott, 2016).

After three weeks of study, the researchers found that in the control group, 8 (21.05%) students did not experience stress, 16 (42.1%) students experienced mild stress, and 11 (28.9%) students experienced moderate stress. In the intervention group, 34 (89.4%) students had normal stress levels, 3 (7.8%) students had mild stress levels, and 1 (2.6%) student had moderate

stress. No students were indicated to have severe stress level.

The result of this study is supported by Demir (2014) who reported that peer mentor groups could reduce stress on nursing students due to academic problems, namely decreased performance, lack of confidence in the future time when being a nurse, economic problems, problems with lecturers, problems with friends, lecture accommodation problems and time management issues.

Research conducted by Jane (2017) states that peer mentor groups can reduce stress and self-efficacy, sense of belonging, and prior loneliness to and following the mentorship experience. In the study assisted by six mentors, each mentor helped from problems from groups of problematic nursing students. So that for six weeks students can solve the problem and can be free from stress (Sheppard, 2018) This was the same thing done by Li (2010) for nursing students who practiced in hospitals who experienced stress due to not being able to adapt to the hospital environment (Rn, 2011) The results of research conducted by Yilva Pallson found that peer mentoring can affect the increase in self-efficacy in the intervention group (Palsson, 2017)

CONCLUSION AND SUGGESTION

There are differences in the stress levels among first-semester nursing students before and after the implementation of peer support groups in the intervention group with p-value = 0.000 (p<α=5%). Whereas in the control group, the p-value was 0.813 (p>α=0.05). Thus, peer support groups influenced the decrease in stress levels among the students.

Nursing students should be able to see phenomena that can cause them to experience stress. It is important that the students are aware of planning further actions to handle or prevent stress. Educational institutions can apply peer support groups for the first semester students so that the students obtain ways to deal with psychological problems such as academic stress. Further studies should consider a larger population of all health science students such as midwifery, medical, nutrition, and many others.

REFERENCES

Birks M. (2013) Undergraduate Nursing Studies : The First-Year Experience.

Chernomas WM, Shapiro C. (2013). Stress, Depression, and Anxiety among Undergraduate Nursing Students. *Int J Nurs Educ Scholarsh*. 10(1):255-266. doi:10.1515/ijnes-2012-0032

Deb S, Banu PR, Thomas S, Vardhan RV, Rao PT, Khawaja N. (2016) Depression among Indian university students and its association with perceived university academic environment, living arrangements and personal issues. *Asian J Psychiatr*.23:108-117. doi:10.1016/j.ajp.2016.07.010

Demir S, Demir SG, Bulut H, Hisar F. (2014). Effect of Mentoring Program on Ways of Coping with Stress and Locus of Control for Nursing Students. 8:254-260. doi:10.1016/j.anr.2014.10.004

Ebrahimi H, Hassankhani H, Negarandeh R, Gillespie M, Azizi A. (2016) Emotional Support for New Graduated Nurses in Clinical Setting : a Qualitative Study. *Tabriz Univ Med Sci*. 5(1):11-21. doi:10.15171/jcs.2016.002

Education Today Stressors for Spanish nursing students in clinical practice ☆. *Nurse Educ Today*. 64(August2017):16-20. doi:10.1016/j.nedt.2018.02.001

Elliott P, Visitor H, Educator P, Yorkshire M, Trust NHS. (2016). Understanding SCPHN students' experience of practice educator-led peer support groups. 42-46.

Fellow P, Carolina N, Hill C, et al. (2003) Evaluation of an Informal Peer Group Experience on Baccalaureate Nursing Students' Emotional Well-Being and Professional Socialization. 19(1):38-48. doi:10.1053/jpnu.2003.9

Gray, S., Wheat, M., Christensen, M., & Craft, J. (2019). Snaps+: Peer-to-peer and academic support in developing clinical skills excellence in under-graduate

nursing students: An exploratory study. Nurse education today, 73, 7-12.

Gidman J, Pgcert M, Rnt H. (2013). Mentors' perceptions and experiences of supporting student nurses in practice. doi:10.1111/ijn.12163

Gurková E, Zeleníková R. (2018). Nursing students' perceived stress, coping strategies, health and supervisory approaches in clinical practice: A Slovak and Czech perspective. *Nurse Educ Today*. 65:4-10. doi:10.1016/j.nedt.2018.02.023

Jane L G. (2017). Peer support systems and professional identity of student nurses undertaking a UK learning disability nursing programme. *Nurse Educ Pract*. doi:10.1016/j.nepr.2017.11.009

June M. Raymond, Kim Sheppard (2018). *Effects of peer mentoring on nursing students' perceived stress, sense of belonging, self-efficacy and loneliness*. doi: 10.5430/jnep.v8n1p16

Kelana. (2011). *Metodelogi Penelitian Keperawatan (Pedoman Melaksanakan Dan Menerapkan Hasil Penelitian)*. Jakarta: Pt. Tim;

Maestro-gonzalez A, Zuazua-rico D, Sánchez-zaballos M, Mosteiro-diaz M. (2018) Nurse

Martin PD, Daniels FM. Penelope D. Martin and Felicity M. Daniels. (2015) 17:1-14.

Pulido-Martos M, Augusto-Landa JM, Lopez-Zafra E. (2012). Sources of stress in nursing students: A systematic review of quantitative studies. *Int Nurs Rev*. 59(1):15-25. doi:10.1111/j.1466-7657.2011.00939.x

Rn HL, Wang LS, Rn IL. (2011). The effect of a peer-mentoring strategy on student nurse stress reduction in clinical practice. 203-210.

Shaban IA, Khater WA, Akhu-zaheya LM. (2012). Nurse Education in Practice Undergraduate nursing students' stress sources and coping behaviours during their initial period of clinical training : A Jordanian perspective. *Nurse Educ Pract*. 12(4):204-209. doi:10.1016/j.nepr.2012.01.005

Sheppard K. (2018) Effects of peer mentoring on nursing students' perceived stress, sense of belonging, self-efficacy and loneliness. 8(1):16-23. doi:10.5430/jnep.v8n1p16

Tseng HC, Wang HH, Weng WC. (2013). Nursing students' perceptions toward the nursing profession from clinical practicum in a baccalaureate nursing program - A qualitative study. *Kaohsiung J Med Sci*. 29(3):161-168. doi:10.1016/j.kjms.2012.08.027

Warshawski, S., Itzhaki, M., & Barnoy, S. (2018). The associations between peer caring behaviors and social support to nurse students' caring perceptions. Nurse education in practice, 31, 88-94.

Watson R, Watanabe K, Yamashita A, Yamaguchi M, Irvine F. (2018). SC. *Int J Nurs Sci*. doi:10.1016/j.ijnss.2018.04.005

World Health Organization. (2004). Promoting Mental Health: Concepts, Emerging Evidence, Practice: Summary Report. Geneva, World Health Organization. Retrieved from: http://WwwWhoInt/Mental_Health/Evidence/En/Promoting_MhhPdf.: 68