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The Impact of an eLearning Course on Nurses' Attitudes towards Mental Illness

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Abstract

Patients with mental illness are stigmatized. Health care professionals may even perpetuate stigma towards mental illness. Thus it is important to ensure that health care professionals have positive attitudes towards patients with mental illness. The aim of this study was to estimate the impact of an eLearning course on psychiatric nurses' attitudes towards mental illness. A cluster-randomized trial (ISRCTN32869544) design was used. Twelve wards were randomly assigned to the eLearning course (ePsychNurse.Net) group or the education as a usual group. The participants (N = 228) were allocated to the intervention (n = 115) or control group (n = 113) according their baseline ward affiliation. Attitudes were rated according to the Community Attitude towards the Mentally Ill scale. Both groups were found to have positive, not stigmatized attitudes towards mental illness. No statistically significant changes were found at three-month or nine-month follow-up. It may be that by developing the ePsychNurse.Net course to include more material related to nurses' attitudes and as nurses become more familiar with eLearning, the course may be effective in shaping nurses' attitudes towards mental illness. On the other hand, our study's nine-month time span may have been too short to change nurses' attitudes.

Keywords

eLearning, Psychiatric Nursing, Cluster-Randomized Intervention Trial, Stigma

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1. Introduction

In recent years, mental health has been recognized as a priority area in most European countries [1]. One key challenge on the political agenda is tackling stigma [2] [3]. Stigma of mental illness is a global problem which may lead to negative discrimination [4] [5] affects in many areas of life [1], such as health care services, housing, education, employment and social relationships [6]. It may also lead to poor quality of life for these people [5]. Moreover, stigma and discrimination against people with mental illness is the main obstacle to the development of mental health care [7]. It is important to ensure that mental health professionals have positive, not stigmatized attitudes towards patients with mental illness [8]. Nurses' positive attitudes may be defined as holding sympathetic and compassionate views towards people with mental illness and disagreeing with the view that those people are inferior or a threat to society and thus need to be excluded or coercively handed [9].

Nurses' positive attitudes are crucial since stigmatized attitudes can have serious implications for patients' recovery [8]. Earlier studies have shown that mental health nurses' attitudes towards mental illness differ across countries [9]. In general, nurses who work in mental health settings have largely positive attitudes towards mental illness [9] and more positive attitudes than general medical nurses [10]. However, stigmatized attitudes are not unknown among mental health professionals [8]. Some research findings indicate that nurses have more stigmatized attitudes towards mental illness than do psychiatrists or the general population [4]. Moreover they may even contribute to perpetuating stigma regarding mental illness [10].

Stigma may not only be seen in nurses' negative attitudes but can contribute to the abuse of human rights in institutions [3]. It is noteworthy that nurses' positive attitudes may reduce coercive interventions [11] since negative experience of discrimination may be related to prior coercive mental health service intervention [5]. Thus it is important to ensure that nurses have positive attitudes towards patients with mental illness. Vocational education may have a positive effect on nurses' attitudes and values in clinical work [12] [13].

This study is based on a large project conducted in six European countries and funded by the European Commission of Leonardo da Vinci (FI-06-B-F-PP-160701). The overall goal of the collaborative project was to ensure high quality, ethically appropriate and therapeutically effective interventions to enable nurses to manage distressed and disturbed patients on psychiatric wards. Based on this goal, an eLearning course (ePsychNurse.Net) was developed [14] since e-learning has been dramatically increased as a promising new method of delivering courses [15].

We have earlier reported findings from Finnish data related to how the ePsychNurse.Net course impacts on knowledge, attitudes towards seclusion and restraint, job satisfaction and general self-efficacy [16] [17], how nurses are able to transfer knowledge from e-learning course to their clinical practice [18] and how the course impacts on the rates and duration of seclusion and mechanical restraint [19]. The aim of this study was to explore the impact of the ePsychNurse.Net course on nurses' attitudes towards mental illness. The hypothesis was that nurses completing the ePsychNurse.Net course would have more positive attitudes towards mental illness.

2. Materials and Methods

2.1. Design

A multicentre randomized controlled open label design was used and the study protocol has been registered (ISRCTN32869544). The study was conducted according to CONSORT guidelines [20].

2.2. Study Setting, Recruitment and Participants

The study was conducted from January to November 2009 on twelve closed acute psychiatric wards in three hospitals in Southern Finland. There were 20 wards that met inclusion criteria: close acute inpatient ward, using restraint and seclusion, not involved same kind of research or developing project. Twelve wards applied to participate and were enrolled. Eligible participants were registered nurses working on the study wards for over three months, aged over 18 years, having a sufficient command of Finnish language, and being willing to participate. Participants' attitudes to mental illness were assessed two weeks before the intervention (baseline), as well as 3-month and 9-month follow-ups. **Figure 1** describes the flow of participants.

2.3. Interventions

The intervention was a three-month eLearning course ("ePsychNurse.Net") developed by collaborative work

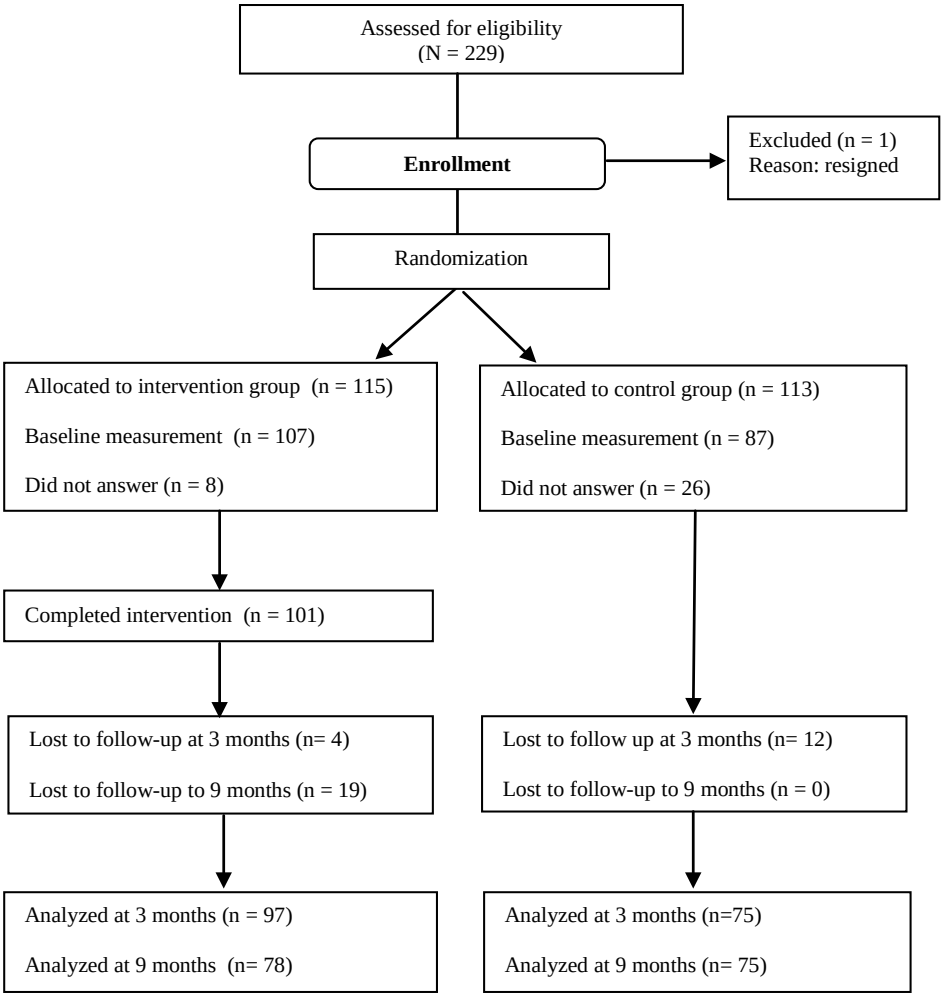

Figure 1. The participant flow diagram.

among experts in Finland, the UK, Ireland, Italy, Lithuania and Portugal in the ePsychNurse.Net project (2006-2008). Although the main aim of the course is to teach nurses to manage distressed and disturbed patients in psychiatric wards, the content of the course includes many elements related psychiatric nurses' attitudes towards mental illness since nurses' positive attitudes are important for treating these patients. The ePsychNurse.Net course cover specific learning methods and includes six modules: 1) legal and ethical issues; 2) behaviour-related factors; 3) therapeutic relationship; 4) self-awareness; 5) teamwork and 6) integrating knowledge with practice. The whole course took 120 h (40 h in working hours and the rest in own time) over three months. It was taken on module-by-module bases in pre-defined order. The main pedagogical approach involved reflective learning [21] because reflection can lead to positive outcomes in students' clinical practice and change their perceptions [22]; for example the self-awareness techniques to gain a more profound understanding of their personal habits and ways of behaving. Several learning methods were used: reading material, Power Point lectures, virtual patients' cases, discussion, online chat option with tutors, reflective writing and assignments. During the course the nurses were supervised by twelve trained tutors. The control group had continuing vocational education as usual. It included different topics of psychiatric care and was irregular and fragmental.

2.4. Outcome Measures

The Community Attitude towards the Mentally Ill (CAMI; [23] [24]) scale was used in this study. The instrument includes 40 items with four subscales: 1) Authoritarianism; 2) Benevolence; 3) Social restrictiveness and 4) Community mental health ideology. Authoritarianism refers to a view of mentally ill persons as someone infe-

rior requiring coercive handling. Benevolence reflects a sympathetic view of those suffering from a mental illness. Social restrictiveness refers to the belief that the mentally ill patients are a threat to society. Community mental health ideology reflects acceptance of mental health services and mental ill patients in the community. Five-point Likert type responses are provided for each item ranging from "strongly agree" (1) to "strongly disagree" (5). Each subscale consists of 10 items, and five of these are reverse-coded. A mean score is calculated for each subscale. Higher scores on the authoritarianism subscale and on the Social Restrictiveness subscale reflect negative attitudes while higher scores on the Benevolence subscale and on the Community Mental Health Ideology subscale suggest a more positive view. The reliability of CAMI ranges from alpha 0.68 to 0.88 for different subscales and the scales correlate highly with each other [24]. Three items were modified to ensure that the language was gender neutral, but still ensuring that the original meaning was retained. CAMI was translated into Finnish according to standard procedures for the purposes of this study [25]. Although CAMI was developed to measure the general population's attitude towards community mental health facilities [23], it has been used during the past 30 years among a wide variety of participants and in a number of differing contexts [26]-[28] also among nurses in psychiatric settings [9] [29].

The background information included the nurses' gender, age, length of working experience in psychiatry, work position, continuing education received on mental health and coercion, and experiences of violence at work.

2.5. Randomization

The study wards were randomized by a coin to allocate them either to the ePsychNurse.Net group or to the training-as-usual group. After wards' randomization the participants (N = 228) were allocated to the intervention (n = 115) or control group (n = 113) according to their baseline ward affiliation. This study was conducted in a real-life clinical setting, therefore we could conceal allocation only until the start of the intervention. Participants and researchers could not be blinded.

2.6. Ethical Considerations

The study was evaluated by the local Ethics Committee (HUS 13.3.2007, §50) and authorized by the directors of the study organizations. It was emphasized that although every nurse in the study wards expected to participate the ePsychNurse.Net course, participation in the study was voluntary and refusal would not affect the working conditions. Data were treated in confidence [30].

2.7. Data Analysis

Sum variables according to theoretical categories were formed. These were obtained by adding up the coded answers and dividing the calculated sum by the number of variables so that the sum variables had the same scale as the individual items. Consequently, the range of the sum variables' was the same as in the original question. The four sum scales of CAMI were analysed and compared at different measuring points (baseline, 3-month and 9-month follow-up). Comparisons were conducted between the two groups for each measurement using two-sample t-test. Repeated measures analysis of variance and Bonferroni corrected contrasts were used to calculate significant changes between groups within time. A P-value of <0.05 was considered statistically significant. Analyses were performed with SPSS 16.0 software.

3. Results

3.1. Baseline Data

The CAMI was completed at baseline by 194 nurses (intervention group n = 107, control group n = 87). One hundred and six (55%) were female, average age was 43 years (range: 24 - 64, SD: 9.2) and working experience in psychiatry varied from one month to 37 years (mean: 15.6 years, SD: 9.3). Most of the participants were registered nurses (n = 116; 60%) or mental health nurses (n = 62; 32%). Sixty-seven percent (n = 122) had received continuing education in psychiatric nursing and 58% (n = 107) in coercion. Only one participant had no experiences of violence at work. There were no statistically significant differences in any characteristics, supporting the effectiveness of the random allocation.

3.2. Outcomes and Estimation

No statistically significant findings were found between the study groups. Only in social restrictiveness at baseline there was a statistically significant difference (p = 0.040) between the study groups (**Table 1**). Both groups were found to have positive attitudes towards mental illness. The control group had slightly more positive attitudes on all four sub-scales at all time-points.

Change in attitudes related to authoritarianism decreased slightly (−0.01) in the intervention group and increased (+0.03) in the control group during the nine months of follow-up. In benevolence both groups showed some decrease at nine months (intervention group −0.04, control group −0.02). Social restrictiveness increased in both groups (intervention group +0.03, control group +0.04). In community mental health ideology there was a slight decrease (−0.03) in the intervention group, while the control group rates were similar at baseline and at 9-month follow-up. In within-group analysis no statistically significant changes were found at three-month (p range from 0.577 to 1) or nine-month (p range from 0.361 to 0.952) follow-ups (**Table 1**).

4. Discussion

Our aim was to explore the impact of the ePsychNurse.Net course on nurses' attitudes related to mental illness. We found the nurses' attitudes in both study groups quite positive, but our hypothesis that nurses completing the ePsychNurse.Net course would have more positive attitudes towards mental illness than the control group was not upheld. In general, education has been shown to have some impact on nurses' attitudes [31] [32]. Our nurses' attitudes were already positive at baseline and this may be one reason why no statistically significant change occurred. Perhaps only a very potent training course would have the capacity to achieve a statistically significant change. On the other hand, reviews of the impacts of e-learning indicate that e-learning is not superior to traditional learning method when educating health care professionals [15] [33].

Change in attitudes is slow [34]. Thus, our study's nine-month time span may have been too short to internalize the new attitude. Moreover, the nurses in our study did not choose to attend the course because all nurses on the intervention wards were expected to take part in it which may have affected some nurses' motivation to study in the course and further to their learning outcomes. However, although the course was obligatory based on directors' decisions, the participation into the study was voluntary.

The lack of attitude change may also have been an expression of the inadequacy of the e-learning course. The e-learning course may be itself a rather new method. The use of eLearning may provoke ambivalence, negative perceptions [35] and some resistance [36]. This may be especially true in psychiatry, where information technologies are not yet as common as in other sectors [37]. Moreover, it has been argued that education alone is insufficient to change nurses' attitudes, especially in acute inpatient facilities [38] [39]. Thus it seems that ePsychNurse.Net alone is not enough to endure changes in staff attitudes but simultaneous use of other interventions is required.

Other research on this ePsychNurse.Net course found that the participating nurses would recommend it to other nurses. Moreover, they reported that knowledge gained during the course was transferrable to daily practice

Table 1. Impact of ePsychNurse.Net on nurses' attitudes towards mental illness.

	Baseline			3 months				9 months			
	Intervention group (n = 107) mean (SD)	Control group (n = 87) mean (SD)	p	Intervention group (n = 97) mean (SD)	Control group (n = 75) mean (SD)	p	Change baseline to 3-months p	Intervention group (n = 78) mean (SD)	Control group (n = 75) mean (SD)	p	Change baseline to 9-months p
Authoritarianism	2.19 (0.42)	2.08 (0.39)	0.055	2.20 (0.42)	2.08 (0.39)	0.113	0.717	2.18 (0.46)	2.11 (0.43)	0.348	0.850
Benevolence	3.94 (0.36)	3.96 (0.36)	0.595	3.89 (0.36)	3.94 (0.36)	0.370	0.577	3.92 (0.38)	3.94 (0.39)	0.716	0.361
Social restrictiveness	2.05 (0.47)	1.91 (0.45)	**0.040**	2.08 (0.46)	1.97 (0.51)	0.131	0.887	2.08 (0.52)	1.95 (0.50)	0.113	0.753
Community mental health ideology	3.69 (0.59)	3.77 (0.53)	0.318	3.66 (0.61)	3.78 (0.60)	0.194	1.000	3.66 (0.66)	3.77 (0.61)	0.277	0.952

and that the course gave them useful ideas for developing their daily work [18]. In future, in light of our results if the object is to improve the nurses attitudes towards mental illness, these different aspects should be focused on more comprehensively in the course. This is important since stigmatization of mental illness is a global problem [5], including psychiatric health care settings [10]. It is also important to note that professionals may be the perpetuators of stigma towards mental illness [10]. Educational interventions are important since although direct impacts on attitudes are not achieved an indirect impact might occur through increased skills to treat psychiatric patients [40]. The ePsychNurse.Net course offers a new educational intervention to be implemented internationally since the course was developed by collaborative work among experts from six European countries.

In interpreting the current results, there are some additional areas of consideration, including how attitudes were assessed, possible contamination bias and capacity of the intervention to change attitudes. First, it may be that the CAMI scale was not sensitive enough to show the attitudinal change. The fact is that the CAMI scale was originally developed to assess the general population's attitudes towards community mental health facilities [24], although it has been used with a wide variety of participants, including nurses in psychiatric settings [9] [30]. Moreover, Morris *et al.* [35] concluded that the validity of the CAMI scale for assessing psychiatric nurses' attitudes is not good. Second, in this study participants and researchers could not be blinded due to the nature of the intervention. Therefore we cannot ensure that no contamination occurred between the study groups. Third, the main aim of the ePsychNurse.Net course was not to change nurses' attitudes to be more positive towards mental illness but to teach nurses to manage distressed and disturbed patients in psychiatric hospitals. Although the ePsychNurse.Net course's modules includes elements related psychiatric nurses' attitudes towards mental illness the strength of the intervention to change nurses' attitudes seems to be too weak. On the other hand, nurses' positive attitudes towards mental illness are in a crucial role when managing distressed and disturbed patients. Thus it is important to explore the ePsychNurse.Net course's impact on nurses' attitudes. It may be that by developing the ePsychNurse.Net course to include more material related to nurses' attitudes towards mental illness the course may be more effective also to change nurses' attitudes.

5. Conclusion

Patients with mental illness are stigmatized and nurses may be the perpetuators of stigma. Thus there is a need to ensure that nurses' attitudes related mental illness are positive. One way to influence nurses' attitudes is education. The ePsychNurse.Net course, which was especially developed for nurses' vocational education on managing disturbed and aggressive psychiatric patients, was not found to be effective. However, it may be that by developing the ePsychNurse.Net course to include more material related to nurses' attitudes and as nurses become more familiar with eLearning, the course may be effective in shaping nurses' attitudes towards mental illness.

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