

The gap between mental health nurses' perceptions on their role in somatic screening and lifestyle coaching for patients with a severe mental illness and their perceived actual practice: a qualitative study

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Background: Patients with a severe mental illness (SMI) have very high morbidity and mortality rates. It is estimated that patients with SMI have a life expectancy that is 20-30 years shorter than the general population. The majority of these premature deaths can be attributed to natural causes such as cardiovascular disease, respiratory diseases and certain types of cancer, all preventable and manageable diseases. Multiple factors contribute to this shortened life expectancy, such as symptoms of the mental disorder, lifestyle factors, poverty, lack of participation in society, side effects of medication as well as limited access to medical care. Several interventions and guidelines have been developed to promote somatic screening and lifestyle coaching in patients with SMI. Mental health nurses (MHN) have an important role in performing these interventions. However, it is unclear how mental health nurses perceive their role with respect to somatic screening and lifestyle coaching.

Aims: To describe how MHN perceive their role concerning somatic screening and lifestyle coaching for patients with SMI and how this affects their practice.

Method: A descriptive qualitative design was applied. Fifteen MHN working in a FACT-team were interviewed. Thematic analysis was performed.

Results: The majority of nurses who were interviewed perceive somatic screening and lifestyle intervention as a part of their role. However, there appears to be a gap between the role they perceive and actual practice. Factors influencing the perceived ability of executing this role were identified. Being able to connect with the patient seemed a crucial factor in this process.

Conclusion and implications of key findings: Nurses perceive barriers in executing their role in somatic screening and lifestyle interventions. Nursing education should focus on knowledge and skills concerning healthy lifestyle and establishing a connection with the patient

Keywords: Nursing role, Mental health, Physical health, Severe mental illness

Samenvatting

Achtergrond: Patiënten met een ernstige psychiatrische aandoening (EPA) hebben zeer hoge morbiditeit- en mortaliteitscijfers. In 2015 is geschat dat patiënten met EPA 20 tot 30 jaar korter leven dan mensen zonder die aandoeningen. Deze kortere levensverwachting is grotendeels te wijten aan natuurlijke doodsoorzaken zoals cardiovasculaire aandoeningen, longziekten en bepaalde typen kanker. Dit zijn allemaal ziekten die te voorkomen of te behandelen zijn. Meerdere factoren dragen bij aan deze kortere levensverwachting zoals de symptomen van de psychische ziekte, leefstijl gerelateerde factoren, armoede, geringe deelname aan de maatschappij, bijwerkingen van medicatie en minder toegang tot de gezondheidszorg. Er zijn verschillende interventies en richtlijnen ontwikkeld om somatische screening en leefstijl interventies bij patiënten met EPA te verbeteren. Psychiatrisch verpleegkundigen spelen over het algemeen een belangrijke rol in deze interventies. Echter het is onduidelijk hoe psychiatrisch verpleegkundigen hun rol zien ten aanzien van somatische screening en leefstijl begeleiding.

Doel: Beschrijven welke rolopvatting psychiatrisch verpleegkundigen hebben ten aanzien van somatische screening en leefstijl begeleiding bij patiënten met een ernstige psychiatrische stoornis en hoe deze rolopvatting hun werk beïnvloedt.

Methode: Een beschrijvend generiek kwalitatief onderzoek is uitgevoerd, waarbij vijftien verpleegkundigen uit een FACT-team zijn geïnterviewd. De interviews zijn thematisch geanalyseerd.

Resultaten: Een meerderheid van de geïnterviewde verpleegkundigen ziet somatische screening en leefstijl interventies als hun rol. Echter er blijkt een discrepantie tussen wat verpleegkundigen als hun rol beschouwen en wat zij daadwerkelijk uitvoeren. Geïnterviewde verpleegkundigen noemen verschillende factoren die hiermee samenhangen. Een cruciale factor is aansluiting vinden bij de patiënt gedurende het proces van somatische screening en leefstijl interventies.

Conclusie en aanbevelingen: Verpleegkundigen vinden dat ze een rol hebben in het uitvoeren van somatische screening en leefstijl interventies, maar voeren die maar ten dele uit. Scholing aan verpleegkundigen moet zich vooral focussen op hoe aansluiting gevonden wordt bij de patiënt.

Introduction

People with a severe mental illness (SMI), such as bipolar disorder, major depression and schizophrenia, have poor life expectancies and decreased quality of life (1,2). Their life expectancy is estimated to be 20-30 years shorter compared to the general population (3,4). Research shows about 60% of these high mortality rates are due to physical illnesses, such as cardiovascular disease, respiratory disease and certain types of cancer (5,6). This is due to a complex variety of factors, such as unhealthy lifestyle habits (smoking, sedentary lifestyle, overeating, substance abuse and practicing unsafe sex), the symptoms of the mental disease (e.g. negative symptoms), genetic factors, the negative side effects of psychotropic medication, lack of participation in society, and socio-economic factors such as poverty (6-8).

Healthcare professionals' actions concerning these known factors are inadequate (6). Research shows low levels of screening and monitoring of physical health risks in patients with SMI (6,9). Healthcare professionals can be pessimistic when it comes to the physical health of patients with SMI compared to the general population (6). Patients with SMI suffer from stigma, their physical problems are addressed as psychosomatic problems, which often leads to not receiving proper care (10). Patients with SMI receive healthcare of poorer quality than patients without SMI (11). In order to increase the life-expectancy and quality of life of patients with SMI it is important healthcare professionals support them in recognizing their physical problems and seeking the appropriate help for their physical problems (1).

Several interventions and guidelines have been developed during the past years, enabling healthcare professionals to provide adequate care concerning somatic screening and lifestyle coaching for patients with SMI (12,13). These guidelines advocate nurses perform an important role in the somatic screening and lifestyle interventions for patients with SMI (12-15). Several studies concerning the role perceptions of mental health nurses (MHN) in performing somatic screening and lifestyle interventions have been conducted, in inpatient and community settings (16,17). These studies showed nurses support somatic screening (16,17). However, they perceive the feasibility of performing somatic screening as low, due to several factors such as funding and staff shortages but also lack of knowledge about how to systematically perform somatic screenings (17). A survey conducted by Bartlem et. al. (2016) has revealed that of all community healthcare professionals, nurses were most likely to report the provision of preventive care for risk behaviors (smoking, nutrition, alcohol and physical activity) was part of their role. Healthcare professionals in general reported to have the confidence, knowledge, resources and skills to provide preventive care for all four risk behaviors (16). To date, qualitative studies regarding physical health of patients with SMI only focus on somatic screening and monitoring, but not on lifestyle coaching. Furthermore,

how nurses perceive their role and how this affects their practice has never been studied in the Netherlands. Therefore, a combination of both interventions are being studied in the Netherlands as basic elements to achieve good quality of care.

Objective

The aim of this study was to describe how MHN working in community mental healthcare settings perceive their role in performing somatic screening and lifestyle coaching for patients with SMI and how this affects their practice.

Method

This study was conducted as part of a larger study in which somatic screening and lifestyle coaching for patients with SMI has been implemented and studied in specialized mental health organizations in the Netherlands (LEF-study). Implementation effects and health of patients are currently being studied. MHN have been trained in performing an intervention and are currently performing this intervention.

Design

This study has a descriptive qualitative design with a generic approach (18). This design was chosen because this study aims to discover how MHN perceive their role in performing somatic screening and lifestyle coaching in patients with SMI, and how this affects nursing practice, according to these nurses. A descriptive qualitative design makes it possible to study in depth how MHN experience their role in somatic screening and how they perceive their actions in practice (18).

Setting

This study was performed in 10 community mental healthcare teams in the Netherlands, frequently organized as Flexible Assertive Community Treatment teams (FACT-teams). FACT is a Dutch variation on the internationally known Assertive Community Treatment teams (ACT-teams) (19). ACT-teams deliver high intensive treatment and care to patients with SMI who experience a crisis. They provide treatment and care to about 20% of the patients with SMI in a certain region. FACT-teams deliver treatment and care to all patients with SMI in a certain region. FACT-teams can deliver high intensive treatment and care to patients with a psychiatric crisis, but can also deliver treatment and care to patients with SMI who are stable. If patients are stable they often receive individual case-management, coordinated by a nurse (20). FACT-teams can consist of psychiatrists, psychologists, nurses, nurse practitioners (NP's), social workers and consumer-providers (21).

Participants

Through purposeful sampling, 15 nurses in four mental health organizations covering six cities and their surrounding regions in the Netherlands, were invited to participate in this study. It was estimated data-saturation would be reached with 15 participants. Prior to the interview, nurses received a short questionnaire about their characteristics. Maximum variation was sought in work experience in mental healthcare, work experience in a FACT-team and education.

13 nurses were recruited by sending information about this study to the team leaders of several FACT-teams, asking their permission for the inclusion of three to five nurses. The inclusion criteria was: MHN working in a FACT-team. Exclusion criteria were: (a) nurse practitioners and (b) nurses who have received additional education in performing somatic screening and lifestyle guidance, because this was presumed to influence role perceptions.

After 13 interviews had been conducted, the research group concluded more information was needed from nurses who perceive they succeed in performing their role. Negative case analysis was applied. Negative case analysis is defined as addressing alternative explanations of the data, especially those that may be in contrast to previous interpretations of data (22). In this study two nurses who received training on the subject, and appeared to perform somatic screening and lifestyle coaching in a systematic way, were recruited from the LEF-study. These nurses will be further referred to as 'nurses with extra training'.

Data collection

All interviews were conducted by the first author, between February and May 2016. The interviews were semi-structured using an interview-protocol, during the interview there was room to explore other topics that emerged during the interview (23). The interview-protocol was based on relevant literature about the perception of nurses concerning their role in screening and lifestyle interventions and reviewed by the supervising researcher. Every interview started with the question: what does somatic screening and lifestyle coaching mean to you? All interviews took place at the participants' office. The interviews were audio-recorded and transcribed verbatim.

Data analysis

Data were analyzed in Nvivo 11.0, using thematic analysis. This process consisted of six steps based on the theory of Braun et. al. (Table 1) (24). Data analysis started with transcribing the audio files of the interviews verbatim (a). The researcher read and reread the interview and assigned initial codes to the text (b). Then a first draft of potential themes was

conducted, which emerged from the codes (c). After this, the research group discussed the codes and emerging themes, which led to a first draft of themes and subthemes (d). Next the principal researcher read all interviews again to assign relevant data to the themes. When all data were assigned to the themes, the researcher checked if every theme and subtheme consisted of enough data to support it. Subthemes that were not supported enough were inserted into another subtheme (e). Finally, another research meeting was conducted to discuss final themes and reach consensus about the themes (f).

- Insert table 1 -

Trustworthiness

To ensure trustworthiness, the guidelines Lincoln and Guba (1985) established for trustworthiness were applied (25). Credibility was enhanced by member-checking and negative case analysis. Dependability and confirmability were enhanced by conducting an audit trail and confirmability was also enhanced by using reflexivity and thick description. An overview of the strategies that were carried out are presented in table 2.

- Insert table 2 -

Ethical considerations

This study followed the ethical principles of the Declaration of Helsinki (version 2013) (26) and the guideline Good Clinical Practice (GCP) (27). The science-committees of four mental health organizations were asked permission to recruit three to five nurses working in their organization. Prior to the interview, an informed consent form was signed by the nurse and the researcher.

Results

A total of 75 nurses were invited to participate in this study. 18 nurses responded they were willing to participate. However, due to issues with planning only 15 nurses were interviewed, their characteristics are presented in table 3.

- Insert table 3 -

All but two nurses acknowledged performing somatic screening and lifestyle coaching is part of their role. There is a discrepancy in what nurses think they should do and what they state they actually do. Nurses identify several influencing factors. Three main themes were found: (1) a majority of the nurses perceived somatic screening and lifestyle intervention as a part of their role. (2) there appeared to be a gap between the role they perceive and perceived actual practice. (3) factors influencing the perceived ability of executing this role were

identified. Being able to connect with the patient seemed to be the crucial factor in this process.

I should..

Most nurses commented somatic care and psychiatric care are inseparable and believe it is important to perform a role in somatic screening and lifestyle coaching. Two nurses stated they thought performing somatic screening and lifestyle coaching was the responsibility of a nurse. However, they did not feel obligated to do so themselves. Some wanted to actually perform the somatic screening because they already knew the patient and knowing the patient enables nurses to signal risks. Other nurses described they would rather have a NP or General Practitioner (GP) performing somatic screening because this would keep everyone's role more clear for patients.

Nurses described roles they perceive in relation to patients. Signaling potential risks for patients is the start, this can be done by performing somatic screening but also by paying close attention to potential risk behaviors when visiting patients homes. When potential risks are signaled nurses think it is important to advice the patient. Another role most nurses described is motivating patients to undergo a somatic screening or make lifestyle changes. Some nurses were trained in motivational interviewing techniques. All nurses described referring patients to other healthcare professionals as one of their main roles. They mostly refer patients to the GP, dietician or physical therapist (Table 4, quote 1). In case patients find it hard to keep their appointment with other professionals, most nurses are willing to accompany them. One nurse described a coaching role towards other nurses (Table 4, quote 2).

I should but..

Even though most nurses said somatic care and psychiatric care should be integrated, most of them focused on addressing patients' psychiatric problems. Most nurses described difficulties in performing tasks in somatic screening and lifestyle interventions. They described they did not have protocols or guidelines on how to perform somatic screening and lifestyle interventions. This leads to them just doing whatever they think is right, without theoretical background (Table 4, quote 3). The outcome of the somatic screening is often only reported in the patient's record without any follow-up. Furthermore, if they did succeed in following up on the somatic screening by making lifestyle goals it often occurred nurses made goals for their patients. The goals they made were not concrete which led to patients not knowing what their actual goal was or how to establish it. The two nurses with extra training described making goals with the patient was one of the hardest parts in the whole

process (Table 4, quote 4). According to them it is crucial patients make their own goals and nurses help them in establishing small concrete goals which they can actually achieve.

Some nurses described involving a patients' informal caregivers is important in being able to systematically perform somatic screenings and lifestyle interventions (Table 4, quote 5). Informal caregivers can be involved in motivating patients to get screened or take action in changing their lifestyle but also in accompanying patients to doctor's appointments. Other nurses do not involve a patient's informal caregivers, some forget to involve informal caregivers and others perceive too many barriers in involving informal caregivers, such as lack of knowledge or pessimism (Table 4, quote 6).

There are many different views on how to organize somatic screenings and lifestyle coaching. Some nurses said somatic screening should be performed in an office because this is more professional. Others stated performing somatic screening should be performed in a patient's home because this is more humane (Table 4, quote 7). Some nurses tried to find a balance: patients who were able to come to an office were screened at the office, patients who were not able to come to an office or did not show up were screened at their homes.

Several nurses referred patients to other professionals, with the argument this saves time, or they themselves lack the knowledge to coach the patient. However, in most cases referring does not lead to better results. Several nurses said they had to accompany many patients to the GP, because they experienced the GP's do not take patients with SMI seriously (Table 4, quote 8). A few nurses described having a dietician or physical therapist with sufficient knowledge and experience with psychiatric patients can be of great value. To some of the participating teams a NP was added, which was perceived as an advantage in performing somatic screening and lifestyle coaching. During their education NP's get trained how to recognize physical illnesses and how to deal with them. A few nurses mentioned NP's have more skills for interpreting results of the somatic screening than a psychiatrist or a GP (Table 4, quote 9). Having a NP also made it possible to follow-up on a somatic screening and helped nurses to see which somatic risk factors should be addressed. They could consult the NP when they ran into problems.

Establishing a connection

During the interviews with the nurses with extra training a theory was formed about what is most crucial in being able to perform successful somatic screening and lifestyle coaching. It became clear the nurses with extra training perceived similar barriers as the other nurses in performing somatic screening and lifestyle coaching. A difference between the nurses and

the nurses with extra training was the nurses with extra training were able to establish a connection with the patient, concerning somatic screening and lifestyle coaching. One of the nurses with extra training described she would address somatic screening and lifestyle coaching during every appointment with the patient in order to make it a part of their routine. By doing so she managed to establish a connection with the patient. Patients could talk about what worried them about their somatic condition and which wishes they had. It took knowledge and skills from the nurse to be able to recognize these wishes and formulate concrete goals with the patient to actually work on these wishes. A difference in goals between the nurses with extra training and the other nurses was the other nurses would make goals like: lose weight by eating healthy (Table 4, quote 10). Whereas, the nurses with extra training would make goals like: lose weight by drinking water instead of lemonade, they could specify the patients goals because they knew which specific lifestyle choices patients made due to the connection they had established. Furthermore, the nurses with extra training were more creative in formulating goals with the patient because their knowledge of physical health and healthy lifestyle allowed them to. Whereas, the other nurses struggled to do so because they lacked this specific knowledge.

Other hindering factors in performing somatic screening and lifestyle coaching nurses described is the fact patients have SMI. Nurses described the following factors: lack of initiative which makes it hard to motivate patients, lack of finances which makes it hard for patients to consume healthy food, lack of social contacts which may affect a patients' self-esteem (Table 4, quote 11), not being able to recognize or explain their complaints adequately and not paying visits to their doctor or dentist (Table 4, quote 12). These SMI related factors meant nurses had to invest more time in their patients. However, nurses described they perceived a lack of time which often led to them not addressing somatic screening and lifestyle coaching. The nurses with extra training recognized these hindering factors as well. However, they described it just took some more patience and endurance to succeed with these patients. They did not perceive a lack of time. Furthermore, one of the nurses with extra training stated nurses who perceive a lack of time in performing somatic screening and lifestyle coaching probably do not think it is important enough. Which is confirmed by one of the other nurses (Table 4, quote 13).

- Insert table 4 -

Discussion

This study shows a majority of nurses acknowledge performing somatic screening and lifestyle coaching as belonging to their role. There is however a discrepancy in what most nurses think they should do and what they state they actually do. Nurses identify several influencing factors. What seemed most crucial in being successful in performing somatic screening and lifestyle coaching was establishing a connection with the patient and following the patient's wishes.

Our study shows nurses experience barriers performing their role, such as lack of time and education, which is in line with other studies (28-31). In contrast with these findings, Bartlem et al. (2016) found healthcare professionals in general stated to have enough time and knowledge to perform preventive physical care for patients with SMI (16). This discrepancy could be explained by the fact Bartlem performed a survey which consisted of a questionnaire. In our qualitative study nurses were asked to give a reflection on their role perceptions and on their current role. There appears to be a gap between what nurses perceive as their role and what they actually do, when it comes to performing somatic screening and lifestyle interventions, which confirms previous research (17). In our study nurses described difficulties performing somatic screening and lifestyle interventions for people with SMI because of SMI related factors, such as negative symptoms, use of psychotropic medication and lack of finances. Nurses with extra training did not experience SMI related factors as hindering. Previous studies about somatic care integrated with psychiatric care show conflicting results (16,32,33). One study shows healthcare professionals think most of their patients are not interested in improving their health risk behavior (16). Another study shows from a sample of 122 patients with SMI who smoke, 84% was motivated to quit and 75% of them wanted help doing so (32). One study shows patients with mental health disorders experience barriers to physical activity themselves, due to lack of motivation, tiredness and weight gain due to medication, and costs (33). A systematic review published in 2016 reported motivation for physical activity does not depend on diagnosis or use of medication, but is negatively related to negative symptoms (34). In our study establishing a connection with the patient and letting patients make their own goals were described as important factors for succeeding in somatic screening and lifestyle coaching. These were also described as the hardest parts of the process. This matches the phenomenon called 'the righting reflex' described in the motivational interviewing theory (35). It is a trap many nurses recognize whilst motivating patients in changing their behavior, it can be defined as 'correcting or offering alternatives rather than providing guidance to patients'(35). Literature confirms it is difficult to suppress this righting reflex (35).

Certain limitations to this study should be taken into account. Data-saturation was not reached. We present preliminary insight in what nurses perceive as their role, and to what extent they think they execute this role. This study was conducted in FACT-teams in the Netherlands. The Netherlands have a unique healthcare system, therefore FACT-teams can currently only be found in the Netherlands (19). This could make the results of this study less generalizable for other countries. By describing the setting in the method section of this article an effort was made to gain insight in the circumstances wherein the data were gathered. Possibly sampling bias occurred during the recruitment of participants. A total of 75 nurses were invited to participate in this study, only 18 were willing to participate. Possibly, only nurses who acknowledge their role in somatic screening and lifestyle interventions responded. Nurses who do not acknowledge their role in somatic screening and lifestyle interventions could have been missed. This study also had several strengths. Strategies were taken into account to enhance trustworthiness of the study such as triangulation, member-checking and keeping an audit trail. Also negative cases were added to the sample. These negative cases showed a different perspective on the phenomenon under study.

Conclusion and implications

While the physical health of patients with SMI is extremely alarming, nurses do not seem to actively perform a role in improving the health of patients with SMI. However, they do perceive it as being a part of the nurses' role but perceive many barriers in actually performing these roles. This is due to several factors related to nurses, patients, informal caregivers, other professionals and the way of organizing care. What seems to be most crucial in being successful in performing somatic screening and lifestyle coaching, is establishing a connection with the patient and staying close to the patient's wishes. In order to enable MHN to perform physical healthcare successfully several recommendations can be done: (a) education in physical health and healthy lifestyle behavior, (b) education in how to help patients formulate specific goals, (c) education in how to establish a connection with patients.

Nurses perceptions about their role in somatic screening and lifestyle coaching have already been studied several times. Therefore, future research should focus on the views patients with SMI have on somatic screening and lifestyle interventions and their opinions on the established connection with their nurse.

References

- (1) Millar H. Management of physical health in schizophrenia: a stepping stone to treatment success. *Eur Neuropsychopharmacol* 2008 May;18 Suppl 2:S121-8.
- (2) Walker ER, McGee RE, Druss BG. Mortality in mental disorders and global disease burden implications: a systematic review and meta-analysis. *JAMA Psychiatry* 2015 Apr;72(4):334-341.
- (3) Laursen TM, Nordentoft M, Mortensen PB. Excess early mortality in schizophrenia. *Annu Rev Clin Psychol* 2014;10:425-448.
- (4) Hoang U, Goldacre MJ, Stewart R. Avoidable mortality in people with schizophrenia or bipolar disorder in England. *Acta Psychiatr Scand* 2013 Mar;127(3):195-201.
- (5) Vreeland B. Treatment decisions in major mental illness: weighing the outcomes. *J Clin Psychiatry* 2007;68 Suppl 12:5-11.
- (6) De Hert M, Correll CU, Bobes J, Cetkovich-Bakmas M, Cohen D, Asai I, et al. Physical illness in patients with severe mental disorders. I. Prevalence, impact of medications and disparities in health care. *World Psychiatry* 2011 Feb;10(1):52-77.
- (7) Barnard K, Peveler RC, Holt RI. Antidepressant medication as a risk factor for type 2 diabetes and impaired glucose regulation: systematic review. *Diabetes Care* 2013 Oct;36(10):3337-3345.
- (8) Whiteford HA, Degenhardt L, Rehm J, Baxter AJ, Ferrari AJ, Erskine HE, et al. Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *Lancet* 2013 Nov 9;382(9904):1575-1586.
- (9) Morrato EH, Druss B, Hartung DM, Valuck RJ, Allen R, Campagna E, et al. Metabolic testing rates in 3 state Medicaid programs after FDA warnings and ADA/APA recommendations for second-generation antipsychotic drugs. *Arch Gen Psychiatry* 2010 Jan;67(1):17-24.
- (10) De Hert M, Cohen D, Bobes J, Cetkovich-Bakmas M, Leucht S, Ndeti DM, et al. Physical illness in patients with severe mental disorders. II. Barriers to care, monitoring and treatment guidelines, plus recommendations at the system and individual level. *World Psychiatry* 2011 Jun;10(2):138-151.

- (11) Thornicroft G, Rose D, Kassam A. Discrimination in health care against people with mental illness. *Int Rev Psychiatry* 2007 Apr;19(2):113-122.
- (12) Meeuwissen J, Meijel Bv, Gool Rv, Hamersveld Sv, Bakkenes M, Risseeuw A, et al. Leefstijl bij patiënten met een ernstige psychische aandoening. 2014 [Lifestyle for patients with a severe mental illness] article in Dutch: Available at: <http://www.venvn-spv.nl/nieuwsbrief/nieuwsbrief23-richtlijn-leefstijl-patienten-ernstig-psy-aandoening.pdf>.
- (13) Meeuwissen J, Meijel Bv, Piere Mv, Bak M, Bakkenes M, Kellen Dvd, et al. Somatische screening bij patiënten met een ernstige psychische aandoening. 2014; [somatic screening for patients with a severe mental illness] article in Dutch: Available at: <http://www.venvn-spv.nl/nieuwsbrief/nieuwsbrief23-richtlijn-somatische-screening-patienten-ernstige-psy-aand.pdf>.
- (14) NICE. Bipolar disorder: assessment and management, clinical guideline. 2014; Available at: <https://www.nice.org.uk/guidance/cg185/resources/bipolar-disorder-assessment-and-management-35109814379461>. Accessed 06/18, 2016.
- (15) NICE. Psychosis and schizophrenia in adults: prevention and management, clinical guideline. 2014; Available at: <https://www.nice.org.uk/guidance/cg178/resources/psychosis-and-schizophrenia-in-adults-prevention-and-management-35109758952133>. Accessed 06/18, 2016.
- (16) Bartlem K, Bowman J, Ross K, Freund M, Wye P, McElwaine K, et al. Mental health clinician attitudes to the provision of preventive care for chronic disease risk behaviours and association with care provision. *BMC Psychiatry* 2016 Mar 2;16(1):57-016-0763-3.
- (17) Happell B, Scott D, Nankivell J, Platania-Phung C. Screening physical health? Yes! But...: nurses' views on physical health screening in mental health care. *J Clin Nurs* 2013 Aug;22(15-16):2286-2297.
- (18) Portney L, Watkins M. Foundations of clinical research applications to practice. 3rd ed. New Jersey: Pearson prentice hall; 2009.
- (19) van Veldhuizen JR. FACT: a Dutch version of ACT. *Community Ment Health J* 2007 Aug;43(4):421-433.
- (20) Veldhuizen JR, van B, M., Teer W. FACT: de 'Functie ACT' [FACT: the function ACT] article in Dutch. *Maandblad Geestelijke Volksgezondheid* 2006;6(61):525-534.

- (21) Wat is F-ACT. 2015. [What is F-ACT] article in Dutch: Available at: <http://www.f-actnederland.nl/wat-is-f-act/>.
- (22) Holloway I, Wheeler S. Qualitative Research in Nursing and Healthcare. 3rd ed. Chichester: Blackwell Publishing Ltd; 2010.
- (23) Boeije H. Analysis in Qualitative Research. 1st ed. London: SAGE publications; 2010.
- (24) Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Research in Psychology 2006;3(77).
- (25) Lincoln YS, Guba EG. Naturalistic inquiry. Beverly Hills: Sage; 1985.
- (26) WMA Declaration of Helsinki - Ethical Principles for Medical Research Involving Human Subjects. 2013; Available at: <http://www.wma.net/en/30publications/10policies/b3/>.
- (27) Good Clinical Practice. 2015; Available at: http://www.onderzoekenpraktijk.nl/wet_en_regelgeving.
- (28) Bradshaw T, Pedley R. Evolving role of MHN in the physical health care of people with serious mental health illness. Int J Ment Health Nurs 2012 Jun;21(3):266-273.
- (29) Blythe J, White J. Role of the mental health nurse towards physical health care in serious mental illness: an integrative review of 10 years of UK literature. Int J Ment Health Nurs 2012 Jun;21(3):193-201.
- (30) Robson D, Haddad M, Gray R, Gournay K. Mental health nursing and physical health care: a cross-sectional study of nurses' attitudes, practice, and perceived training needs for the physical health care of people with severe mental illness. Int J Ment Health Nurs 2013 Oct;22(5):409-417.
- (31) Happell B, Platania-Phung C, Scott D. Physical health care for people with mental illness: training needs for nurses. Nurse Educ Today 2013 Apr;33(4):396-401.
- (32) Aschbrenner KA, Brunette MF, McElvery R, Naslund JA, Scherer EA, Pratt SI, et al. Cigarette smoking and interest in quitting among overweight and obese adults with serious mental illness enrolled in a fitness intervention. J Nerv Ment Dis 2015 Jun;203(6):473-476.
- (33) Happell B, Platania-Phung C, Scott D. Placing physical activity in mental health care: a leadership role for MHN. Int J Ment Health Nurs 2011 Oct;20(5):310-318.

(34) Farholm A, Sorensen M. Motivation for physical activity and exercise in severe mental illness: A systematic review of cross-sectional studies. *Int J Ment Health Nurs* 2016 Mar;25(2):116-126.

(35) Rollnick S, Miller W, Butler C. *Motivational interviewing in healthcare*. 1st ed. New York: Guilford Press; 2008.

Tables

Table 1. Phases of thematic analysis (24)

Phase	Description of the process
a. Familiarizing yourself with your data	Transcribing data, reading and re-reading the data, noting down initial ideas.
b. Generating initial codes:	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
c. Searching for themes:	Collating codes into potential themes, gathering all data relevant to each potential theme.
d. Reviewing themes:	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
e. Defining and naming themes:	Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
f. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

Table 2. Overview of evaluative criteria and strategies that were applied.

Evaluative criteria	Strategy	How it was conducted
Credibility	Triangulation	Six interviews were independently coded by four different people and discussed during consensus meetings.
	Member checking	During the analysis of the interviews a summary of the analysis and interpretations of the researcher were made. This summary was sent to the participant who was asked to check the interpretations of the researcher and give feedback if this was not in line with what the participant meant to say. 3 out of 15 participants responded to this member check and they all agreed with the interpretations that were made by the researcher. Therefore the member check did not result in changing the interpretations of the data.
	Negative cases	After thirteen interviews were conducted, the researcher recruited two negative cases to gain further insight in the topic.
Transferability	Thick description	The setting and participant characteristics were described.
Dependability	Audit trail	Raw data and memo's that were made during the study were saved and a logbook was kept.
Confirmability	Audit trail	Raw data and memo's that were made during the study were saved and a logbook was kept.
	Reflexivity	After every interview the researcher wrote a reflection. The researcher obtained feedback on the interview techniques from the supervising researcher and peers.

Table 3. Participant characteristics

Item	Category	Frequency (N=15)	Mean	Standard deviation	Range
Age	20 – 30 years	2	43,8	11,82	(26 – 63)
	31 – 40 years	5			
	41 – 50 years	4			
	51 – 60 years	2			
	61 – 65 years	2			
Gender	Male	8	18,9	11,45	(7 – 45)
	Female	7			
Work experience in psychiatry	5 – 10 years	4			
	11 – 20 years	6			
	21 – 30 years	3			
	31 – 40 years	1			
	41 – 45 years	1			
Work experience in a FACT team	0 – 2 years	5	3,3	1,89	(0,17 – 7)
	3 – 5 years	9			
	6 – 7 years	1			
Education and other work experience	Registered nurse	15			
	Work experience in a hospital	4			
	Work experience in a nursing home	1			
	Work experience in care for addicts	5			

Table 4. Quotes illustrating the data

Quote number	Quote
1	What I often do is when someone has obesity for instance I refer them to a physical therapist to start losing weight with the help of a physical therapist ... If needed I can accompany them one or two times, if that is what they need to accomplish something (<i>Male, 39 years old</i>)
2	You could make 2 nurses responsible for the somatic screenings. They would be the ones who handle everything that has to do with somatic screening and they could coach other nurses in how to do it. (<i>Male, 26 years old</i>)
3	No it's all, no we don't have protocols that tell us to follow certain steps ... you have to learn from experience what works and what doesn't (<i>Female, 53 years old</i>)
4	Yes and that's a real quest it's not easy, you have to make the goals very specific but also have to stay as close as possible to what the patient wants. And that can be very challenging because patients aren't really specific most of the times. But you want them to make their own goals... (<i>Male, 60 years old</i>)
5	Yes as much as possible because we have so little time. And caregivers have much better ideas and are able to do a lot more than we are. (<i>Female, 34 years old</i>)
6	Yes we try to include family members ... we try to involve them in the lifestyle changes but most of the time they will respond with: we have told them they should quit that behavior so many times before but they just won't listen. That's what they'll ship us off with.. (<i>Male, 63 years old</i>)
7	They've been back and forth to clinics all their lives, they always have to turn up to our offices I just don't think that's humane or something... You could just as easily visit them at home and perform the screening over there. (<i>Female, 29 years old</i>)
8	Then they are at the GP's and he sees a bunch of diagnoses and doesn't really react to what the patient says, yes well that's too bad, and that's it ... There's a reason why our patients live 20 years shorter ... it's not just the pills it's also because healthcare professionals don't take them seriously. (<i>Male, 32 years old</i>)
9	I think especially our doctor finds it very difficult, because he receives a bunch of somatic results and thinks what am I going to do with this? They find it very hard to interpret those results and don't really know when something is problematic. A nurse practitioner is much better at that than a psychiatrist, I think (<i>Female, 29 years old</i>)
10	Okay you should lose 40 pounds, how do you wish to establish that? Well in one year I would like to have lost some weight by exercising more and eating less. Well and then I just put that in a plan and guide her through this process. (<i>Male, 39 years old</i>)
11	How can I participate in a social life, that's often the first barrier ... Often they live in isolation or with little people, and it's important they see ow right this is what the world looks like, I'm worth something. I can participate in life again. (<i>Male, 49 years old</i>)
12	It's very exhausting sometimes to have to drag people out of their bed and into a car because of a doctors' visit. It's not just knocking on their door and he steps in the car and we drive over to the doctor. No I have to knock on the door, wait if he opens, walk to his bed pull the sheets off of him, it's not something you can do in an hour. (<i>Female, 34 years old</i>)
13	Yes well I basically just don't make time for it ... maybe it's just not that important to me.. (<i>Female, 29 years old</i>)