

# VU Research Portal

## Dealing with medically unexplained physical symptoms in primary care

Sitnikova, E.V.

2020

### **document version**

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

### **citation for published version (APA)**

Sitnikova, E. V. (2020). *Dealing with medically unexplained physical symptoms in primary care: Exploring measurement issues, current care and the effectiveness of nurse-led psychological care*. [PhD-Thesis - Research and graduation internal, Vrije Universiteit Amsterdam].

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

### **Take down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

### **E-mail address:**

[vuresearchportal.ub@vu.nl](mailto:vuresearchportal.ub@vu.nl)

## SUMMARY

**Chapter 1** introduces the concept of Medically Unexplained Physical Symptoms (MUPS), its measurement, current management in primary care and the associated costs. Experiencing MUPS is common for all people and does not necessarily lead to problems. However, experiencing many MUPS from various organ systems may imply 'somatization'. Somatization is a tendency to experience and communicate somatic distress and symptoms unaccounted for by pathological findings, to attribute them to physical illness, and to seek medical help for them. Previous research found that the number of symptoms predicts the course of MUPS. Also the rationale for our intervention and implementation considerations are provided in the first chapter. Finally the research questions investigated in this thesis are presented. The research questions are:

- 1) What is the best self-report measurement instrument to measure somatization in primary care?
- 2) What does the current management of MUPS patients in Dutch primary care entail?
- 3) What is the effectiveness of a cognitive behavioural therapy (CBT) intervention for patients with undifferentiated somatoform disorder carried out by mental health nurse practitioners in Dutch primary care?
- 4) Is the new CBT intervention cost-effective compared to current usual care?
- 5) How did patients and MHNPs feel about and evaluate the CBT intervention for undifferentiated somatoform disorder?

**Chapter 2** presents results of a systematic review of clinimetric properties of self-report questionnaires that measure somatization among adult primary care patients. We assessed the methodological quality of the included studies using the COnsensus-based Standards for the selection of health Measurement Instruments (COSMIN) checklist. We included 24 articles describing 9 questionnaires. Most studies we found investigated the Patient Health Questionnaire 15-item somatic symptom severity scale (PHQ-15) and the somatization subscale of the 4-Dimensional Symptom Questionnaire (4DSQ). These two questionnaires had the highest quality considering various measurement properties (internal consistency, test-retest reliability, structural validity and construct validity). The PHQ-15 had good criterion validity, whereas the 4DSQ was validated in several languages. Several other questionnaires (Bodily Distress Syndrome checklist, Physical Symptom Checklist and the somatization subscale of the Symptom Checklist) showed promising results but were studied in a small number of studies, making

robust conclusions impossible. We therefore recommend the use of either the PHQ-15 somatic symptom severity scale or the 4DSQ somatization subscale for measurement of somatization in primary care.

**Chapter 3** contains the detailed description of the study design of the CIPRUS study, a cluster randomized controlled trial investigating the effectiveness of a short-term cognitive behavioural intervention for undifferentiated somatoform disorder, provided by a mental health nurse practitioner, compared to usual care. The intervention consisted of 6 sessions of 30 minutes each and was based on the 'consequences model' and Problem-Solving Treatment (PST). The 'consequences model' shifts the focuses of treatment from the cause of the symptoms to their consequences in the patients' daily life. Using PST, the negative consequences are addressed one by one and patients acquire general problem-solving skills. Furthermore, this chapter provides a description of the primary and secondary outcomes, the choice for potential moderating factors, and the (rationale behind the) various statistical analyses. It describes that we chose for assessments at 0, 2, 4, 8 and 12 months and how we planned to select 212 adult patients from Dutch surgeries.

In **chapter 4** we present results from an observational study on the current management of MUPS patients within Dutch general practices. The Dutch College of General Practitioners published a guideline for the management of MUPS in 2013. We were interested to know whether general practitioners (GPs) adhere to the guideline and whether there were changes over time. In the observational study we screened routinely recorded health care data from electronic medical records of 77 patients participating in the 30 general practices included in the control group of the CIPRUS study. Data on GPs' management strategies were collected over the past five years for each patient and were categorized into diagnostic and therapeutic management strategies. Results showed that the most common diagnostic strategies used by GPs were physical examination (24.5%) and additional investigations by the GP (11.1%). Most common therapeutic strategies were prescribing medication (24.6%) and providing explanations (11.2%). GPs tended to adjust medication, discuss progress and schedule follow-up appointments as symptoms persisted. Surprisingly, exploring the symptoms according to all complaint dimensions (not only somatic but also cognitive, emotional, behavioural and social) as recommended by the guideline, and referrals to a psychologist or psychiatrist were among the least frequently reported strategies (3.5%, 0.5% and 0.1% respectively). Therefore, our results suggest that management of MUPS patients by the GPs was partly in line with the guideline, but some core elements were missing.

In **chapter 5** we present the clinical results of our randomized controlled trial, the CIPRUS study, where we investigated the effectiveness of a cognitive behavioural intervention for patients with undifferentiated somatoform disorder, delivered by mental health nurse practitioners (MHNPs). Practices were randomly assigned to the intervention or usual care group. The intervention consisted of six sessions with the MHNP. The usual care group received care that they normally would for their MUPS from the GP or potential other health care providers the GP might have referred them to. The primary outcome was physical functioning. Secondary outcomes were various aspects of quality of life, mental functioning, anxiety, depression and somatic symptom severity. There was a one-year follow-up. There were 111 participants in the intervention group and 87 in the usual care group. Compared to usual care, participants in the intervention group showed improvement in physical functioning, less limitations due to physical problems and less pain over 12 months. Although significant, these effects were not very large. Effects were larger and more relevant for patients whose symptoms developed more recently and who had fewer physical diseases. No significant effects were found for the remaining outcomes. Therefore, we concluded that our cognitive behavioural intervention was effective in improving physical functioning and decreasing pain, and it was particularly suitable for patients with symptoms that had been present for a limited number of years and with few comorbid physical diseases.

**Chapter 6** presents the results of the cost-effectiveness of the CIPRUS study. We performed an economic evaluation from a societal and healthcare perspective with a 12 months follow-up. The primary outcomes were quality-adjusted life-years (QALYs), physical functioning, somatic symptom severity, anxiety and depression. Over a period of 12 months, the mean total healthcare costs in the intervention group were significantly lower than in the usual care group. At a willingness to pay of 0 € per additional unit of effect, the probability of the intervention being cost-effective was 0.93 for QALYs and 0.92 for physical functioning, somatic symptom severity, anxiety and depression. Therefore, the intervention was cost-effective compared to usual care. This implies that implementation of such an intervention on a larger scale would result in a decline in healthcare costs, but would obviously require increased MHNP capacity.

In **chapter 7** we provide the process evaluation of the CIPRUS study, where the MHNPs' and patients' experiences with the intervention are described. MHNPs provided information for the process evaluation by participating in semi-structured interviews with the researcher. Patients in the intervention group of the CIPRUS study provided information by completing written evaluation questionnaires. Overall, MHNPs reported that the intervention manual gave them useful tools for working with patients with

undifferentiated somatoform disorder. MHNPs also reported that the intervention seemed effective for the patients, especially for those with less comorbidity and psychosocial problems and those open to change. MHNPs reported that they generally adhered to the intervention manual, but adjusted the length of the sessions, considering the given 30 minutes too short. They would have felt more comfortable having more flexibility when using the treatment manual. They also indicated that the intervention did not seem suitable for at least a third of the participating patients due to psychiatric comorbidity, psychosocial problems, lower IQ and older age. In the future, MHNPs and GPs could play a larger role in patient selection. Regarding the patients, half of them reported the intervention helped them at least somewhat and a third were positive about following the intervention in the future, if needed. Patients with a shorter symptom duration were more likely to report that the intervention was helpful.

In the general discussion (**chapter 8**) we provide a reflection on the main findings of this thesis. We embed our results in what is already known on the topic and discuss methodological considerations, clinical implications and provide recommendations for future research.

In conclusion, this thesis contributes to the body of knowledge on MUPS and particularly on its measurement and management, and on the effectiveness and cost-effectiveness of a cognitive behavioural intervention in primary care. We investigated which two questionnaires are best suited for measuring MUPS and learned that Dutch GPs partly follow the Dutch guideline for MUPS, but seem to neglect several essential elements. We also provided the first evidence for the effectiveness of an intervention for undifferentiated somatoform disorder delivered by MHNPs, and found that a cognitive behavioural intervention with a short duration improved physical functioning and decreased limitations and bodily pain, compared to current usual care. The intervention was particularly effective in patients with a shorter symptom duration and few comorbid physical diseases. The intervention was also cost-effective compared to usual care, so it seems that its implementation on larger scale would decrease costs. Resources would have to be allocated differently for this purpose. Finally the intervention did not seem to be effective for patients with a longer symptom duration and higher number of comorbid physical diseases. Future research should focus on discovering what type of interventions would be effective for these groups of patients.