Manuscript title: Facilitators and barriers in implementing clinical nursing assessment in mental health care of older people a multimethod approach

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Abstract

With the ageing of the population and the growing prevalence of dementia, specialized and collaborative nursing care is paramount in this area. To ensure better quality care, it is necessary to use effective and context-specific processes to implement evidence-based practices and more specifically clinical nursing assessment. This study aimed to identify and describe the factors that may influence implementation of clinical nursing assessment in mental health care of older people. The Consolidated Framework for Implementation Research was employed to guide the evaluation in the pre-implementation phase in the specific context of mental health care of older people. Using a multimethod approach with non-probability convenience sampling, interviews, focus groups and a quantitative survey were conducted. A total of 39 hospital nurses (registered nurses and head nurses) were interviewed. Analysis yielded five main factors, notably three barriers and two facilitators. Barriers include a lack of general nursing culture, deficiencies in leadership, and difficulties in communication and collaboration. Facilitators comprise team cohesion and the perceived benefits of the study.

Keywords: Clinical Nursing Assessment; Geriatric assessments; Consolidated Framework for Implementation Research; CFIR; Geriatric Psychiatry; Geriatric mental health

Introduction

Clinical nursing assessment is an integral part of the nursing role (Meyer & Lavin, 2005). High clinical surveillance skills are associated with lower rates of death from complications occurring during hospitalization (Aiken, Clarke, Cheung, Sloane, & Silber, 2003; Schmid, Hoffman, Happ, Wolf, & DeVita, 2007). However, implementation in clinical settings remains challenging. For the time being, clinical assessment for nurses is not systematically deployed in mental health care of older people hospital settings (Ortoleva Bucher, Dubuc, von Gunten, & Morin, 2016). According to the Organization for Economic Co-operation and Development (OECD), standards of practice are not generally adopted by health professionals. Thus, quality of care is suboptimal, if non-existing. In the context of mental health care of older people, the use of evidence-based practices is also reported to be lower than in the care of the general population and in long-term care (OECD, 2013). Challenges in introducing evidence-based practice are predominantly attributed to lack of knowledge and limited understanding of implementation mechanisms (Boström, Slaughter, Chojecki, & Estabrooks, 2012). Main benefits of using implementation models, are the development of more systematic procedures that optimize chances of changing practice and improve dissemination of such evidence-based practices (Helfrich et al., 2010; Rycroft-Malone & Bucknall, 2010).

Background

In the field of implementation sciences, many theories comprise similar or overlapping constructs, only differing slightly in terms of terminology and definitions (Larsen, Voronovich, Cook, & Pedro, 2013). The Consolidated Framework for Implementation Research constitutes one of the most comprehensive models, drawing on a systematic literature review of 18 implementation models (CFIR, Damschroder et al., 2009). Thus, this model allows for the identification of most factors that may improve implementation of new healthcare practices. With this model, existing or potential implementation barriers and facilitators can be identified for a sufficiently detailed understanding of the context (Nilsen, 2015). The framework describes 39 constructs across five major domains: outer setting, inner setting, characteristics of individuals, processes, and innovation characteristics.

To our knowledge, studies analyzing factors that influence the implementation of clinical nursing assessment in the field of geriatrics are rare. Therefore, an extended literature review was conducted to determine publications dealing with the implementation of new practices in mental health care of older people. The results of this review are presented in Table 1. Many CFIR constructs are only marginally explored. Most studies on constraining and facilitating factors of the CFIR domains have focused on the post-implementation phase. Only two studies have used the CFIR in the pre-implementation phase (English, 2013; Robins et al., 2013). Therefore, difficulties that may be encountered during the implementation process, were rarely considered (Kirk, Yankey, Birken, Abadie, & Damschroder, 2016). Using the CFIR in pre-implementation, provides better grasp of the situation; whereby potential barriers can be bypassed. It is then possible to focus on facilitating factors.

Methods

The present study aimed at identifying and describing factors that may influence the application of clinical nursing assessment in mental health care of older people in order to

best plan future implementation. In the context of this study, we focused on three domains of the CFIR, namely the Outer Setting, the Inner Setting, and Individual Characteristics. The Outer Setting comprises the external factors to the institution that can influence intervention implementation; whereas the Inner Setting includes the characteristics of the implementing organization. Personal attributes of the staff may also affect implementation, which is encompassed in the Individual Characteristics. The innovative character of the implementation of the clinical nursing assessment has already been described elsewhere (Ortoleva Bucher, 2018). This study will promote the integration of the CFIR both in the pre-implementation phase as well as the specific context of mental health care of older people, which is new.

Ethical approval

In Switzerland, research with nursing staff does not require approval by the ethics committee according to the Law on Research on Human Beings (LRH). The study was approved by the university hospital's survey assessment commission (2017-02). Participation was voluntary. All participants were informed about the study objectives, the procedures involved, and the confidentiality of the data. Completion of the questionnaire was considered as consent to participate in the study.

Study design and participants

A multimethod method approach was used involving non-probability convenience sampling, with concurrent quantitative and qualitative data collection. Convenience sampling constitutes a specific type of non-probability sampling, which relies on members of the target population who are conveniently available to participate in research.

The target population was composed of registered nurses (RN) and head nurses (HNs) from four mental health care of older people units of a Swiss university hospital. All head nurses of these units were initially contacted by one of the authors to obtain a list of all registered nurses per unit. Participants were either surveyed or interviewed or both.

Inclusion and exclusion criteria

The inclusion criteria encompassed: being 1) a registered nurse, or 2) a head nurse in the mental health care of older people units of the participating Swiss university hospital.

Persons were excluded, if: they were (1) temporary staff members, working part-time > 50%, or a temporary agent, or (2) have been part of the nursing team for > six months. These criteria were selected to ensure that potential participants identified as nursing team members and had a deep understanding of the existing process, procedure and culture.

Data collection

To the best of our knowledge, no validated tool existed to assess the CFIR constructs such as the outer setting, inner setting, and individual characteristics. Therefore, other validated questionnaires, which measure similar concepts, were selected to assess the CFIR-constructs via online survey. Where no such match was obtained, the constructs were explored with qualitative approaches. An overview of the data collection methods that were used to explore the CFIR constructs, is provided in table 2.

Online survey: All RNs and HNs from the participating mental health care of older people services received a personal email containing a link and invitation to the online questionnaire. The survey comprised four validated and reliable questionnaires (i.e., the *Evidence-Based Practice Beliefs and Implementation Scales,* the *Organizational Change*

Questionnaire – Climate of Change, Processes, and Readiness, the *Readiness for Organizational Change Measure*, and the *Evidence-Based Practice Beliefs and Implementation Scales*). To determine the level of readiness for change, a researcher-developed question was included.

Apart from the *Evidence-Based Practice Beliefs and Implementation Scales,* all scales had to be translated into French due to the predominant language in the study setting. The translations were carried out according to Wild (2005). Forward translation was conducted independently by two native French speakers (i.e., the main author and one of the two master-level students). Backward translation was conducted by a native English speaker. Harmonization was conducted by another author who is bilingual.

The *Organizational Change Questionnaire – Climate of Change, Processes, and Readiness* (OCQ-CPR, Bouckenooghe, Devo, & van den Broeck, 2009) is a 42-item assessment tool that can be administered in organizational settings. The questionnaire allows to determine, if an organization is ready to embrace or reject a new intervention. There are three subscales (Politicking, Involvement in the change process and Intentional readiness of change). Items are ranked on a 5-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). In the French version, coefficient alphas ranged from .72 to .94. As the internal consistency of Politicking (.42) did not meet the .68 standard suggested by Bouckenooghe et al. (2009), this factor was not used in the study.

Readiness for Organizational Change Measure (ROC, Holt, Armenakis, Field, & Harris, 2007) is a 25-item instrument, and is used to gauge readiness for organizational change at an individual level consisting of four subscales (Appropriateness, Management support, Change efficacy, Personally beneficial). Items are ranked on a 7-point Likert scale

ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). In the French version, coefficient alphas ranged from .69 to .89.

The *Evidence-Based Practice Beliefs and Implementation Scales* (EBP-BI, Melnyk, Fineout-Overholt, & Mays, 2008) are composed of the 16-item Beliefs Scale that allows measurement of individual beliefs about the value of evidence-based practice, and the ability to implement it, and the 18-item Implementation Scale that allows for the measurement of the extent to which evidence-based practice was implemented during the last eight weeks. Both scales have been validated in French (Verloo, Desmedt, & Morin, 2017), and include items ranked on a 5-point Likert scale ranging from 1 (“strongly disagree”) to 5 (“strongly agree”) for the former, and from 0 (“0 times”) and 4 (“>8 times”) for the latter. Total scores range from 16 to 80 and from 0 to 72, respectively. Coefficient alphas ranged between .90 and .96, respectively.

Assessing the stages of change provides an indication of nurses’ motivation to adopt clinical nursing assessment in their practice. For this purpose, the recommendation by Csillik and Petot (2012) was followed. For each stage of change (pre-contemplation, contemplation, action, maintenance) identified by Prochaska, DiClemente & Norcross (1992), one item was proposed. Participants chose the proposal that best matched their feelings about the project of implementing clinical nursing assessment.

Focus groups: Eligible nurses were invited by e-mail by the research team to participate in focus groups (n=5, two for the main hospital site, one for each of the other three sites). Each focus group was composed of four to six nurses per service. No demographic data was collected from focus group participants. However, focus groups were predominantly targeting RNs in order to allow the greatest number of different and eventually diverging opinions that could have otherwise been inhibited by the presence of HNs.

Semi-structured interviews: HNs were invited to individual semi-structured interviews (n=12). These interviews were chosen to adapt to the hierarchy among HNs. The focus groups and interviews were conducted by two trained masters-level nursing students supervised by one of the authors, who used interview schedules based on the CFIR categories (see Supplementary File 2). All focus groups and interviews were tape recorded.

Data analysis

The codified quantitative data were processed using Stata ® software, version 14.1. Data were cleaned and missing data were reviewed. For categorical or discrete variables, frequency, percentage and mode were determined. For continuous variables, mean, median, standard deviation and interquartile range were calculated. To analyze differences between RNs and HN, independent t-tests were used. The data from the different sites were examined individually.

All focus groups and interviews were tape-recorded and transcribed verbatim. Deductive content analysis as described by Graneheim and Lundman (2004) was employed. The CFIR-dimensions and -indicators were used as a codebook to identify relevant codes. Coding was conducted by four independent reviewers. Discrepancies were resolved through consensus of discussion. Subsequently, an inductive approach was used to identify subcategories and categories. Facilitators and barriers were identified by interpreting the positive or negative influence on the implementation of clinical nursing assessment.

Results

Demographic data

Of the eligible 77 psychiatric nurses in the research context, a total of 47 responded to the survey. Thirty-nine were included in the study (50.5%), 8 being excluded because of missing data. Table 3 summarizes the participants' demographic characteristics. The majority were women (n=31/38), with a range between 31 and 40 years old (n=18/38), with a bachelor's degree (n=10/39). Many participants had a nursing license from countries other than Switzerland (n=24/38). Twenty-nine participants reported having knowledge of nursing clinical assessment, which included all the HNs (100%), and 68.8% of registered nurses holding a bachelor's degree.

Online survey

Climate, processes and readiness for organizational change (OCQ-CPR)

OCQ-CPR mainly measures constructs associated with the internal environment such as implementation climate, culture and HN implication. Both RN and HNs were moderate in agreement with all the dimensions of the OCQ-CPR. They perceived a moderately good team cohesion (m=3.6, sd=0.73), and found that their immediate superior management were supportive and understanding (m=3.42, sd=0.88).

According to RN and HNs, the management was moderately involved in the change process (m=3.12, sd=0.86). These persons were moderately able to lead the change (m=3.13, sd=0.80). HNs assessed the management's attitude toward the project with a higher score than the RNs (respectively m=4.00, sd=0.21 vs m=3.51, sd=0.64, $p<0.05$). Considering readiness for change, both RN and HNs were prepared to put their energy into the change process. Intentional readiness for change (m=4.18, sd=0.62) had a higher mean score than cognitive (m=3.76, sd=0.53) or emotional readiness for change (m=4.07, sd=0.50). No statistical differences were found between RN and HNs.

Readiness for organizational change (ROC)

ROC mainly measures beliefs and self-efficacy. Participants were moderately ready for organizational change (mean=5.39, sd=1.01) (Table 4). They perceived moderate personal benefit (m=5.39, sd=1.01). No significant statistical differences were found between RN and HNs.

Evidence-based practice, beliefs and implementation

RN and HNS demonstrated moderate beliefs about the value of EBP, and capacity of implementation (mean=56.95, sd=7.20). A low score is reported in EBP implementation (mean=17.61, sd=17.00). However, the large standard deviation shows that there is great variability among nurses regarding EBP implementation. No statistical differences were found between RN and HNs.

Focus groups and interviews

A total of five main factors emerged from the data (figure 1). These included three barriers and two facilitators.

Barriers and constraints

Lack of institutional culture was perceived to be influential. Only a minority of HNs claimed that being part of a university hospital promoted knowledge and research. Most HNs emphasized a lack of understanding or an absence of nursing paradigms and theories within their units.

"We do not really know, which paradigm we work with, so we may all have different ways or use different theories and paradigms ..." (N21)

Consideration of nurses was an issue. If nurses were viewed to be unable to adopt new practices, they are not fully supported. This lack of consideration could constitute a barrier to the implementation of the clinical nursing assessment. Some HNs perceived the majority of RNs as negative and found them complaining too much. The HNs thought that the RNs should focus on caring for patients and not on research. In situations of collaboration, some RNs emphasized that they were not heard nor consulted by the hierarchy. Although RNs participated in meetings, they had little influence within the institution.

> *"There are (…) always… in a department as large and in teams as diverse as ours… people who feed on being very unwell. They state that there are too many temps. But the day, there aren't any left, they will be unhappy because they won't be able to criticize anymore… (laughs)"* (N22)

Deficiencies in leadership, including both a general lack of managerial engagement and a top-down management system, were emphasized by HNs as barriers to fostering new projects. According to most HNs, lack of engagement was reflected ~~in low motivation levels and an~~ as absence of recognition through rewards for high-performing employees when the board of directors passed down their expectations. RNs may not perceive clinical nursing assessment as part of good practice as it was only introduced into the basic training in 2012 in Switzerland. The clinical nursing assessment has, therefore, not yet been fully disseminated and assimilated in practice (Ducraux, Ortoleva Bucher, & Voyer, 2018). One HN pointed out that poor leadership was linked to a lack of institutional guidance.

> *"It is a project [implementing clinical nursing assessment] that is being forced on them [the RN] from high up (…), and then we have to tell them [the RNs] that it is important. And I think we have to give them time [to do the project] during their working hours."* (N16)

Lack of collaboration and communication represented the degree to which the organization networked and collaborated both internally and externally with other organizations. This factor was identified to inspire teamwork and change. For the HNs, collegial, multidisciplinary collaboration could facilitate communication. For the RNs, poor exchange among colleagues resulted in less knowledge being shared concerning patient conditions. Lack of communication with the hierarchy was considered problematic, preventing the transmission of regular information.

> *"So, I'm going to say that collaboration exists* […]. *But it is at the management level…, not in the units. There is no communication.* [...] *[Information] does not come down… I hear a lot about the units but I do not really know how they work internally."* (N6FG)

Enablers and facilitators

Team cohesion, which includes healthy interactions and a positive attitude among the nurses, emerged as an enabling factor for new institutional projects. Sharing a common patient-focused approach allowed nurses to collaborate easily and support one another. Encouragements consisted mainly of mutual feedback. Verbally expressing confidence in ther respective professional skills could lead the RNs to experience an increased sense of self-efficacy during workdays or in new situations.

> *"Motivated… people who are united, that saves lives in difficult situations…, or when we are understaffed. For example, this weekend, I was not happy to come to work... But what helped me, was the team. It was that team atmosphere."* (N17FC)

Project perception was based on nurses' understanding of the application of the clinical nursing assessment, which is related to their beliefs about the project. According to the majority of the HNs, a project could be successfully accepted and implemented if the daily workload and the specificities of daily care was considered. It was equally necessary that projects needed to be meaningful to both the RNs' roles and practice.

> *"I find this project [of implementing clinical assessment in nursing] very interesting,* […] *as it really considers reality. I have the impression that it is less disconnected than other projects; there is a willingness to work with the field. I think it's more likely to become a useful tool. It will bring some order, I guess."* (N18)

For a minority of HNs being interested in research, being open-minded and young were positive factors to engage in change. Most of the HNs, however, feared that implementing clinical nursing assessment would alienate psychiatric care, and emphasize somatic care, instead. A few HNs questioned whether the project was designed for the respective practice. It was doubted, whether organization and functioning of the unit, team size, schedules, and the nurses' culture were sufficiently respected. ~~In particular, one HN highlighted that the project was imposed by the hierarchy and could, therefore, lead to rejection from the nursing staff.~~ One HN expressed concern about clinical assessment being medical practice. According to this incorrect perception (i.e., nursing assessment is different from medical assessment as their goals are not the same), clinical assessments should not be part of the nurse's role.

> *"What bothers me is that nurses become geriatricians, mini doctors,* […] *and that we may ignore or misinterpret behavior problems, anxiety, hallucinations, etc."* (N4)

Discussion

This multimethod study aimed at identifying and describing the factors that influence the implementation of clinical nursing assessment in mental health care of older people. Good clinical nursing assessment is paramount as it reduces patient mortality and therefore increases the safety of care (Aiken et al., 2014). Moreover, successful clinical implementation leads to cost reduction by shortening the length of stays in hospital and readmissions (e.g., Adib-Hajbaghery, Maghaminejad, & Abbasi, 2013). Furthermore, we wanted to employ the CFIR in the pre-implementation phase, and in this specific context, which had never been done before.

In summary, three barriers and two facilitators were identified. The barriers included: lack of a general nursing culture (i.e., little consideration of nurses, limited access to knowledge, low prioritization of objectives), difficulties in communication and collaboration (i.e. lack of standardized and structured communication), and deficiencies in leadership (i.e. patronizing top-down management, little managerial engagement). The first two barriers provided valuable information about the functioning of the participating institution. Generally, culture, networking, and communication are identified as facilitators, not barriers (Barbosa, Nolan, Sousa, & Figueiredo, 2017; Vikström et al., 2017). This may be because research has more frequently focused on project implementation phases (i.e., once innovation has started), whereas the present study occurred during the *pre*-implementation phase. The last barrier referred to the importance of leadership engagement and inclusion of staff (Barbosa et al., 2017; Latham & Brooker, 2017; Mekki et al., 2017).

In contrast, team cohesion (i.e. supporting one another), and RNs and HNs perceiving the project to be both beneficial and relevant, were found to be facilitating factors. The project responded, according to all participants, to a real need for a genuine culture of care, and for

nurse empowerment. A professional culture needs to be based on listening, trust and involve excellent communication skills. It is then possible to engage staff across various levels in implementation projects (Gladman, Conroy, Ranhoff, & Gordon, 2016; Mariani, Vernooij-Dassen, Koopmans, Engels, & Chattat, 2017). That said, at least a quarter of all participants (25%; see Table 4) were not knowledgeable about evidence-based practice and found it difficult to understand the goals of the project.

This pre-implementation study yielded important barriers in this institution that need to be considered, to ensure the project's success. Making use of the facilitators, i.e., the staff's strengths, will be essential as a lever for the implementation of the clinical nursing assessment. For example, a nurse champion to promote communication among RNs and HNs could present an interesting solution, in view of the strong team cohesion in the participating services. Comprehensive training about the use and importance of clinical nursing assessment will be key, in the preparatory phase. Several implementation strategy propositions can be derived based on the Expert Recommendations for Implementing Change (ERIC, Waltz et al., 2015). It will be important to establish an effective communication plan, considering the institution's culture in the face of change and implementation of new practices. Finally, it will be essential to provide good leadership through strong support from institutional leaders.

Application of the CFIR in the pre-implementation phase has yielded essential information that may impact project implementation and contribute or limit success. Therefore, it is recommended to consider the pre-implementation phase in order to devise an implementation plan, based on the respective context's strengths and weaknesses. It is paramount to increase the chances for successful implementation as much as possible.

Several limitations can be identified. Transferability of the study findings may be limited due to the inclusion of the RNs' and HNs' perspective only. The survey responses

may be limited in terms of generalizability due to the small sample. There was a danger of social bias as the study was preparatory to a demand by the hierarchy of the participating institution. As the study participants were aware of this, there was a possibility for socially desirable answers. In order to reduce this danger, the RNs were interviewed separately from HNs.

Conclusion

As the average age of the population continues to rise, geropsychiatry is becoming an area that requires more attention. However, limitations still exist in nursing education and care practices. Identifying factors to improve clinical outcomes of old-age psychiatry is highly relevant and requires further exploration. In an effort to reduce the gap between research and practice, this multimethod research constitutes one of the few studies that performed a pre-implementation assessment of barriers and facilitators in order to optimize the subsequent implementation process. This study highlights the need for detailed and systematic assessment of the factors known to influence implementation. Communication, leadership, and culture are identified to be key elements.

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Table 1

Constraining and facilitating factors according to the CFIR domains based on the literature

Outer Setting	**Constraining factors**	**Facilitating factors**
Patient Needs and Resources	- According to caregivers, health systems' lack of response to patients' needs (1), especially in case of insufficient external funding (2) - Reduced patients' ability to express their needs due to dementia (3) - Lack of consideration of patients' needs and resources by remote management teams (4) - Families' insight and caregivers' perceptions (3, 7-9)	- Financial support (5) - Profitable interventions or those that provide a marketing advantage (6) - Positive effects on patients due to healthcare professionals' satisfaction and motivation (3, 7) - Families' insight and caregivers' perceptions (3, 7-9)
Cosmopolitanism		-
Peer Pressure		-
External Policies and Incentives	- Lack of support for intervention by national guidelines (1-4)	-
Inner setting		-
Structural Characteristics	- Frameworks with many hierarchical levels (4, 9, 10) - Hampered project deployment due to lack of isolation space (2)	-
Networks and Communications		- Bilateral communication between managers and caregivers (4) Regular information to colleagues about the progress and evolution of the project (2)(1)
Culture		- Compatibility between organizational culture and intervention (5, 9, 11) - A team culture based on listening, trust, communication skills, and the ability to inspire other staff members (1, 3, 5, 6)
Implementation Climate		-
Tension for Change		-
Compatibility		-
Relative Priority		-
Organizational Incentives and Rewards	- Lack of motivation by managers or lack of recognition for employees' efforts (7, 8)	- The value of caregivers (7)
Goals and Feedback	-	-
Learning Climate	-	-
Readiness for Implementation	-	-
Leadership Engagement	- Absence or high turnover of management (3, 11) - Presence of managers with little motivation (4), or limited leadership (9)	- Active commitment from managers (1, 3-11)

	- Responsibility of others for intervention development according to managers (7) - Managers focus on administrative tasks over leadership (4)	
Available Resources	- Lack of time and human resources (1, 4-8)	-
Access to Knowledge and Information	- Limited access to databases or resource staff (2, 3)	-
Individual characteristics		-
Knowledge and Beliefs about the Intervention	- Lack of knowledge in staff or managers (5, 6, 8, 9, 11, 12), lack of a common vocabulary to talk about innovations (7), limiting intervention development (3) - Demotivation by employees who were highly resistant to change (3, 4)	- Reflective practice, a common knowledge base, and a high level of professional experience (5, 8) - Positive beliefs about evidence-based practices (13)
Self-efficacy		- Reinforcement of self-efficacy skills through personalized coaching by one member of the implementation team (4, 6)
Individual Stage of Change		
Individual Identification with Organization		
Other Personal Attributes		

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Table 2

The distribution of the constructs explored according to the questionnaires and interviews

CFIR constructs by domain	Outter Setting				Inner Setting												Characteristics of Individuals				
	Patient Needs and Resources	Cosmopolitanism	Peer pressure	External Policies and Incentives	Structural Characteristics	Networks and Communications	Culture	Implementation Climate	Tension for Change	Compatibility	Relative Priority	Organizational Incentives and Rewards	Goals and Feedback	Learning Climate	Readiness for Implementation	Leadership Engagement	Available Resources	Access to Knowledge and Information	Knowledge and Beliefs about Interveenntion	Self-efficacy	Individual Stage of Change	Individual Identif. with Organization	Other Personal Attributes
OCQ–C, P, R: Organizational Change Questionnaire – Climate of change, Processes and Readiness					✓	✓	✓	✓						✓		✓			✓				✓
ROC: Readiness for Organizational change																✓			✓	✓			
EBP – B et I: Evidence-Based Practice-Beliefs and Implementation															✓				✓				
Measurement of the stages of maturity to change-Individual stage of change																					✓		

Table 3.

Demographic characteristics of participants (N=39)

Characteristics	Frequency [n]	Percent [%]
Gender (n=38)		
Women	31	81.6
Men	7	18.4
Age (n=38)		
20-30	4	10.5
31-40	18	47.4
41-50	5	13.1
Older than 50	11	29.0
Education (n=39)		
Basic diploma	19	48.8
Bachelor degree	10	25.6
Other	10	25.6
Continuing education after nursing licence (n=39)	19	48.7
Yes	20	51.3
No		
Country of graduation degree (n=38)		
Switzerland	14	36.9
France	8	21.0
Portugal	11	29.0
Canada	1	2.6

Other	4	10.5
Number of participants working part-time (n=39)		
50-79%	6	84.6
80-100%	33	15.4
Experience in healthcare (n=38)		
Less than 5 years	3	7.9
5-10 years	9	23.7
More than 10 years	26	68.4
Work experience in the current unit (n=39)		
Less than 5 years	16	41.0
5-10 years	10	25.6
More than 10 years	13	33.3
Unit management position (n=38)		
Yes	6	15.8
No	32	84.2
Knowledge of evidence-based practice (n=39)		
Yes	29	74.4
No	10	25.6

Table 4

Participants' perception of factors influencing the implementation of clinical nursing assessment, by position

	Participants [N=39]		Nurses [n=32]		Head Nurses [n=6]	
Questionnaires	Mean	SD	Mean	SD	Mean	SD
OCQ-CPR						
Climate of change or internal context factors	*3.32*	*0.72*	*3.34*	*0.75*	*3.47*	*0.25*
Support of supervisors	3.42	0.88	3.44	0.92	3.62	0.41
Trust in leadership	3.11	0.79	3.15	0.81	3.12	0.54
Cohesion	3.60	0.73	3.66	0.73	3.54	0.62
Participatory management	3.09	1.06	3.04	1.09	3.61	0.71
Process of change factors	*3.21*	*0.72*	*3.21*	*0.75*	*3.37*	*0.49*
Involvement of supervisors in the change process	3.12	0.86	3.10	0.92	3.22	0.62
Ability of management to lead the change	3.13	0.80	3.17	0.81	3.19	0.58
Attitude of top management toward the change project	3.55	0.65	3.51*	0.64	4.00*	0.21

Readiness for change factors	*4.00*	*0.46*	*3.96*	*0.43*	*4.11*	*0.55*
Intentional readiness for change	4.18	0.62	4.17	0.59	4.11	0.78
Cognitive readiness for change	3.76	0.53	3.69	0.51	4.00	0.47
Emotional readiness for change	4.07	0.50	4.02	0.49	4.22	0.50
ROC						
Appropriateness	5.27	0.73	5.29	0.71	5.02	0.77
Management support	4.50	1.26	4.41	1.30	5.19	0.86
Change efficacy	4.69	1.07	4.65	1.09	4.71	0.95
Personally beneficial	5.39	1.01	5.34	1.06	5.67	0.89
	Score	**SD**	**Score**	**SD**	**Score**	**SD**
EBP-BI						
Beliefs and attitude toward EBP	56.95	7.20	57.47	7.30	52.83	5.34
Implementation of EBP	17.61	17.00	18.40	16.86	15.00	20.00

Note. Of the 39 participants, one nurse did not answer the question "Do you occupy a leadership position?"; OCQ-CPR: Organizational Change Questionnaire – Climate of Change, Processes, and Readiness; ROC: Readiness for Organisational Change Measure; EBP-BI: Evidence-Based Practice Beliefs and Implementation Scales

* Significant statistical differences (< 0.05)

Figure 1.

Factors related to implementation of evidence-based practices in mental health care of older people