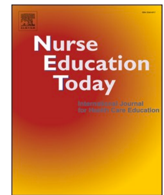
Nurse Education Today 104 (2021) 104986

Contents lists available at ScienceDirect

Nurse Education Today

journal homepage: www.elsevier.com/locate/nedt



Preceptorship of clinical learning in nursing homes – A qualitative study of influences of an interprofessional team intervention

Vera L. Sørø [a,*], Bjørg Aglen [a], Arne Orvik [b], Sylvia Søderstrøm [c], Gørill Haugan [a,d]

[a] Department of Public Health and Nursing, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, Trondheim, Norway
[b] Department of Health Sciences in Ålesund, Faculty of Medicine and Health Sciences, Norwegian University of Science and Technology, Norway
[c] Department of Neuromedicine and Movement Science, Norwegian University of Science and Technology, Trondheim, Norway
[d] Faculty of Nursing and Health Science, Nord University, Levanger, Norway

ARTICLE INFO

Keywords:
Apprentices
Clinical learning
Implementation
Interprofessional
Nursing home
Preceptorship
Qualitative study
Health care students

ABSTRACT

This study aimed to explore the influences of an interprofessional preceptor-team intervention (IPPT) on interprofessional collaboration, preceptors' role, confidence, and motivation to precept health care students (nursing, physiotherapy) and apprentices in a Norwegian nursing home.

Methods: Qualitative data were collected by two focus group discussions: possible gains and pitfalls of the IPPT-intervention were focused. The group-discussions were tape-recorded, transcribed verbatim and analysed by means of qualitative content analysis.

Findings: The IPPT-intervention influenced positively on preceptors' confidence and motivation to work as a preceptor and facilitated interprofessional collaboration between the health professionals. The preceptors' role in the ward became clearer and more visible to the peers. Perceived lack of time, a heavy workload, the ward hierarchy, and lack of managerial support were key barriers for preceptorship.

Conclusions: To enhance preceptors' work and thus student's learning, the ward hierarchy should be limited and interprofessional collaboration further developed. Enhanced visibility and acknowledgement of the preceptors' role and increased managerial support can reduce barriers for preceptorship.

1. Introduction

Researchers (Fox et al., 2018; Reeves et al., 2016) as well as health authorities (Meld.-St. 26, 2014–2015; Meld.-St. 11, 2014–2015; RETHOS, 2019) value interprofessional learning and practice as part of health professional education. A collaborative interprofessional practice contributes to patient safety, efficiency, and work satisfaction (Carnegie Foundation, 2010; McCaffrey et al., 2011). An interprofessional learning environment involving opportunities to learn from and about different health disciplines may improve competence and confidence among students and apprentices in health care (Mackenzie et al., 2007; Pfaff et al., 2014). Still, during practice in nursing homes (NH) the collaboration between students and apprentices is scarce (Gilbert et al., 2010).

2. Background

In Norway, education of health professionals takes place in universities (nurses, physiotherapists, occupational therapists, etc.) and in upper secondary schools (nursing associates). The clinical training happens in health-care institutions such as NHs, guided by discipline-specific health personnel. Thus, clinical learning in NHs signifies an important venue concerning motivation to work in NHs and consequently to attract competent health-care workers (Algoso et al., 2015; Forber et al., 2015). Development of practical skills and attitudes, as well as integration of theory and practice, are vital components of the different health educations (Midgley, 2006).

NH clinical staffs usually comprise registered nurses (RN), physiotherapists (PT), nursing associates and nurse assistants. While the latter lack formal health-care education, nursing associates complete two years in secondary school followed by two years apprenticeship. Apprentices are pupils in upper secondary health-care education under supervision by nursing associates. The latter represents health-professions with a defined, professional responsibility; therefore, supervisors for apprentices are included in the interprofessional preceptorship term (Heiret and Ludvigsen, 2012; Slagstad and Messel, 2014). In Norway, RNs and PTs complete a 3-year university education

* Corresponding author.
E-mail address: vera.l.soro@ntnu.no (V.L. Sørø).

https://doi.org/10.1016/j.nedt.2021.104986
Received 1 February 2021; Received in revised form 30 April 2021; Accepted 17 May 2021
Available online 28 May 2021
0260-6917/© 2021 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

including clinical studies in primary health care as well as specialist health care services.

Health-care services are obligated by law to provide clinical-learning for both students and apprentices (UHR, 2016). However, clinical learning in Norwegian NHs is inadequate (Kårstein and Caspersen, 2014; Meld.St. 13, 2011–2012); national and international studies expose that during clinical studies, students experience insufficiency of support, shared knowledge, regular feedback, assessment, role models, academic discussions and reflections (Husebø et al., 2018; Trede et al., 2016). Qualifying clinical learning in NHs requires skilled preceptors. However, preceptorship is scarcely developed and prioritized in NHs (Holmsen, 2010; Prestbakmo, 2006).

In general, NH staffs are poorly educated and trained as preceptors (Hallin and Danielson, 2010; UHR, 2016). Thus, a quality-assurance system regarding preceptorship of students and apprentices seems required (Forber et al., 2015) along with enhanced preceptor competency (Forber et al., 2015) and a sound balance between preceptorship capacity and competence (Forber et al., 2015; UHR, 2016). Largely, NHs have difficulties in recruiting preceptors (Trede et al., 2016).

3. Study context and aim of this study

Therefore, we developed and implemented the intervention framed Inter-Professional Preceptor Team (IPPT); a specific way of organizing, facilitating, and supporting high-quality preceptorship in NHs. This study aims to explore influences of the IPPT-intervention on interprofessional collaboration, preceptors' role, confidence, and motivation to precept health-care students (nursing, physiotherapy) and apprentices. This study represents a collaboration between The Centre for Development of Institutional Care Services (USH) in Mid-Norway and Norwegian University of Science and Technology (NTNU).

3.1. The IPPT-intervention

The intervention included two different actions; monthly formal interprofessional preceptor team-meetings and organizational support provided by the managers. Much emphasis was placed on interdisciplinary exchange of experience with the aim that the supervisors should be as independent as possible before the USH withdrew. In addition, topics such as "the role of supervisor, what is knowledge, how to find time for preceptorship, and what promotes learning" were discussed across the professions.

3.2. The IPPT-meetings

The USH leader (RN, MA) initiated and led the IPPT aiming at facilitating competence and confidence in the participants' role as a preceptor. During fall 2013-spring 2014, 16 professionals (2 PTs, 6 RNs, 7 nursing associates and 1 social educator) supervising students and apprentices met monthly in the IPPT-meetings (Aasen, 2014). The intervention lasted one year, included seven team-meetings of 2 h containing condensed theory lessons followed by reflections and discussions: issues concerning clinical-learning and preceptorship were discussed.

3.3. The organizational support

To make the preceptors' work visible, the IPPT-activities were included in the shift-system software and reported as planned appointments. To enable preceptor attendance in the IPPT-meetings the managers should organize necessary shift changes.

4. Methods

A descriptive hermeneutic-phenomenological approach (Patton, 2002) was applied. To facilitate preceptors to share and compare experiences, attitudes and knowledge related to the IPPT-intervention, we collected data by focus-group discussions (FGDs) (Kitzinger, 1994; Orvik et al., 2013). FGDs allow for planned discussions with predetermined topics; opinions that do not emerge in individual interviews often emerge resulting from the group dynamics (Barbour, 2007; Berland et al., 2008). Collecting qualitative data by means of FGDs involves building a confidential relationship with the participants so that their opinions emerge without making too many reservations (Jerpseth, 2017). During the FGDs, we actively listened and confirmed the participants' statements both verbally and nonverbally, especially when the participants showed emotional reactions. These strategies seemed fruitful in creating data containing the participants' unique perspective and experiences. The present FGs were small, representing a safe and comfortable arena for sharing thoughts and opinions. In addition, the participants were colleges knowing each other from before. Furthermore, the interview guide did not include conflicting issues, neither did the interviewers signalize interest for such issues. Nevertheless, both FGDs arrived spontaneously at such issues. The interviewer perceived that issues concerning the hierarchical structures were sorted out; the informants had talked about these issues during the IPPT-meetings. The RNs and the PTs acknowledged the health care assistants' feelings of being subordinated and less influential and wanted to do something about it. To further strengthen the trustworthiness of this study, the first and second author made alternative interpretations and understandings, which were discussed in several analysis meetings. Conflicting interpretations were thoroughly discussed to reach a consensus. An example of different interpretation is that the authors had different views on the impact of the intervention on the managers' facilitation of preceptorship.

4.1. Participants

One Norwegian NH with four wards offering clinical learning to nursing and physiotherapy students, nursing apprentices and pupils in health care and social work were included.

Among the 16 partaking preceptors, seven participated in the FGDs, forming two FGs. The drop-out rate among those precepting apprentices was large; they stated sick absence as reason. Otherwise, the attendance in the FGDs was good.

Table 1 shows preceptors invited and participating while Table 2 lists background information.

5. Data

The FGDs were conducted in a meeting room at the NH during the participants' working hours; we utilized a semi-structured interview guide and tape-recorded the discussions. Questions about what it was like to be a preceptor at the NH and what it was like to participate in the IPPT-meetings formed the basis of the interview-guide. Open-ended questions were utilized to facilitate the participants to talk freely, while follow-up questions were used to assist reflections and to explore the phenomena more deeply. The FGDs focused on experiences of being a preceptor, attending the IPPT-teams, and the organization of preceptorship. The interviewer, who was experienced in conducting and co-moderating FGDs, did not participate in the IPPT-meetings, and was not involved as a preceptor at the NH during the project period.

Table 1
Preceptors participating in the FGDs.

	Invited to partake FGD	Partaking FGD
Preceptors of apprentices (FG 1)	7	2
Preceptors of RNs and physiotherapy students (FG 2)	9	5

Note: FGD = focus group discussions.

Table 2
Participant characteristics.

Age			Work experience, years			Mentor education		Times mentoring apprentice or student		Times attended interprofessional mentor team's regular meetings					Attended startup seminars for students and apprentices		Attended gatherings for mentors at college or university	
20–39	40–55	≥56	1–5	6–20	≥21	Yes	No	1–3	4–6	1	3	4	5	6	Yes	No	Yes	No
3	1	3	2	3	3	4	3	4	3	1	1	1	3	1	2	4	3	4

However, the participants knew the interviewer. The first author completed the verbatim transcriptions.

6. Analysis

Data were analysed by means of systematic text condensation (Malterud, 2012). All authors participated in the first naive readings of the transcriptions getting an overview of the content, as well as identifying preliminary themes. Then the first author divided the text into meaning-units, which the researchers discussed, classified, sorted, and coded. The meaning-units belonging to a code group were condensed to reflect the unique meaning of each code. Then these condensates were synthesized in subgroups, reflecting the meaning of the phenomenon. The subgroups were constantly proved by the authors who repeatedly went back to the transcripts to ensure whether they reflected the empirical data. Finally, the subgroups were given headings reflecting the results of the analysis.

7. Ethical considerations

The Norwegian Data Protection Official (NSD, ref.no38 870/3/LB) approved the study. All participants received oral and written information about the study, their right to withdraw at any time without any explanation, and confidentiality. Informed, voluntary written consent was collected by the researcher prior to the FGDs.

8. Results

Table 3 shows the three main themes and their subordinated themes. The citations refer to focus-group 1, precepting apprentices (FG-1) and focus-group 2, precepting students (FG-2) to ensure anonymity.

Table 3
Main themes and subthemes.

Individual experiences by attending IPPT-meetings	Relational experiences by participating in IPPT-meetings	The importance of organizational support for participation in IPPT-meetings and general attitudes towards preceptorship
Main themes		
1. Increased motivation to work as a preceptor	2. Interprofessional understanding and acceptance	3. Organizational support was crucial to secure participation in IPPT-meetings
Subthemes		
Acknowledgement from peers	Increased interprofessional collaboration	Increased visibility of preceptorship - a part of daily-work at the ward
Acknowledgement (of the preceptor role) by colleagues and management	Experience of collegiate support across disciplines	Changes in attitudes towards being a preceptor
Experiences of being a preceptor		

8.1. Individual experiences

8.1.1. Motivation as a preceptor

Several participants experienced that a higher confidence in their preceptorship coincided with the IPPT-intervention. The team-meetings represented a valuable opportunity to share problems and challenges concerning their precepting. Support from peers and IPPT-meetings seemed to strengthen their motivation to continue as a preceptor:

> "The team-meetings gave me more strength to perform as a preceptor."
>
> (FG-1)

> "It is a great strength to attend such groups, even though there is much frustration and negativity…Still, the negative is not what you necessarily are left with."
>
> (FG-2)

The team-meetings provided a setting for discussion of preceptorship challenges, especially problems concerning how to prioritize preceptorship versus other daily work-tasks:

> "We have talked much about time spent…finding time for dialogue, to follow-up and support the apprentices…helping them with their tasks and so on… it is all about releasing time and space."
>
> (FG-1)

Moreover, the team-meetings facilitated and enhanced the relationship between the preceptors, resulting in more contact, support, and dialogue, which eased the burden of being a preceptor:

> "You find support among other preceptors…You know who the others are… during hard times, I can more easily search for support and advice among my colleagues."
>
> (FG-1)

Knowing about and contact with the preceptors in the other wards strengthened them as preceptors. In general, cross-ward collaboration rarely occurred before the IPPT-intervention.

8.1.2. Acknowledgement by colleagues and management

During the IPPT-intervention, the preceptors of students learned to value the nurse associates' preceptorship of apprentices:

> "…gained insight into how preceptors of apprentices work".
>
> (FG-2)

> "…gained an understanding of the work they do".
>
> (FG-2)

In general, the preceptors of apprentices acknowledged preceptorship as before. However, now they experienced more assistance in their preceptorship from preceptors of both apprentices and students.

Several preceptors experienced higher acknowledgement by their colleagues:

> "…gained understanding of the work of the other professional groups".

(FG-1 and 2)

Nevertheless, acknowledgement by the management was still minor:

> "Preceptorship is not a priority task in the ward".
>
> (FG-1 and 2)

8.1.3. *Central aspects of precepting*

The preceptors found supervision of students and apprentices meaningful and important:

> "Our work requires both practical and theoretical knowledge. Consequently, we have to welcome students and apprentices in our practice…."
>
> (FG-1)

> "We are important role models"
>
> (FG-2)

A difference in attitude towards preceptorship appeared, those who guided apprentices perceived their tutorial task with great appreciation:

> "It is exiting to meet with new apprentices…to see how teachable they are…how they can bring me new knowledge."
>
> (FG-1)

Contrary, those guiding students tended to consider preceptorship as a duty:

> "We are required to be a preceptor."
>
> "It is a statutory duty to be a preceptor."
>
> (FG-2)

Accordingly, those precepting apprentices experienced more satisfaction than those precepting students did. Still, several preceptors of apprentices experienced lack of managerial support: in general, preceptorship was a lonely and personal responsibility with minimal solidarity and support:

> "At my ward, I feel alone with my apprentice, I try to tell my colleagues that she (the apprentice) is ours, not only mine."
>
> (FG-1)

The preceptors of physiotherapy and nursing students experienced more acceptance for spending time with their students compared to those mentoring apprentices. This issue was extensively discussed during the IPPT-meetings: a common saying was that those guiding apprentices were at the bottom of the ward hierarchy, while guiding students was highly ranked:

> "Our preceptorship is not taken seriously. We are removable. Apprentices are just put into work."
>
> (FG-1)

The participants experienced limited time to carry out the preceptorship. Despite lesser time for preceptorship compared to those precepting students, preceptors of apprentices were overall more positive to precepting.

8.2. *Relational experiences*

8.2.1. *Interprofessional acceptance and collaboration*

Many preceptors experienced an increased interprofessional understanding and acceptance explaining that the IPPT-intervention enabled interprofessional relationships:

> "The IPPT-groups were good because I became acquainted with other preceptors and now, I have someone to ask for advice".
>
> (FG-1)

> "Now, I have someone with whom I can share my frustration."
>
> (FG-2)

> "Now, I have a greater insight in the other professionals' work."
>
> (FG-2)

Several preceptors experienced enhanced interprofessional collaboration during and after the IPPT-intervention. Interprofessional dialogues concerning students and apprentices, as well as interprofessional collaboration in general increased:

> "The IPPT has the potential to become an arena for interprofessional collaboration."
>
> (FG-2)

> "The IPPT-meetings induced a more regular interprofessional collaboration."
>
> (FG-1)

Several issues and experiences regarding preceptorship appeared during the intervention period, demonstrating that the IPPT-intervention increased shearing of experiences across different professions:

> "The interprofessional construction of the IPPT is important."
>
> (FG-2)

Nevertheless, some participants did not appraise the interprofessional construction of the IPPT:

> "The interprofessional IPPT-construction is not so important to me."
>
> (FG-1)

Contrary, some preceptors of apprentices considered the interprofessional construction of the IPPT-meetings to be beneficial.

8.2.2. *Support across disciplines*

Support across disciplines included 'experience-sharing', 'internships across the disciplines', 'easier to assist' and 'getting help':

> "Nice to share experiences"
>
> (FG-1and 2)

> "Apprentices worked with the physiotherapists"
>
> (FG-1)

> "…easier to be able to assist with help"
>
> (FG-2)

> "…more easily seeking support from other preceptors' in the NH"
>
> (FG-1 and 2)

Particularly, 'having support-partners across the disciplines' was valued.

8.3. *Organizational support and attitudes*

8.3.1. *Organizational support*

The IPPT-intervention included organizational support, e.g. making changes in the participants' shift-plan to enable participation in the IPPT-meetings. Accordingly, the ward managers must be informed

about the planned IPPT-meetings and follow-up actively. Minimal personal time-control and apriority of their preceptorship made it difficult to leave the ward to participate in the IPPT-meetings. Specifically, sick-leaves, deficiency to change shifts, lack of communication etc. induced these challenges, resulting in difficulties attending the IPPT-meetings:

> "It is very difficult to attend the IPPT-meetings when the ward is short in staff."

(FG-1)

> "It is hard to leave the ward when my colleagues are left short in number."

(FG-1)

Participants who supervised physiotherapy and nursing students reported identical difficulties, though these preceptors experienced more personal time-control. It was easier for them to find time to partake in the IPPT-meetings compared to those who supervised apprentices:

> "During the IPPT-meetings I noticed that those who supervise apprentices are given less value when it comes to priorities, which is not acceptable."

(FG-2)

This statement indicates interprofessional understanding in the organization: physiotherapists and RNs realized that those precepting apprentices were obliged to a close follow-up of the apprentices despite having less personal time-control compared to preceptors of students.

8.3.1.1. Increased visibility of preceptorship. When scheduling their work at the ward's list of today's tasks, the preceptorship became more visible:

> "Preceptorship is now acknowledged as a task like other tasks in the ward. More often colleagues tend to reward each other and ask for our competence as supervisors."

(FG-2)

Some had not included their preceptorship in the ward's task list and put forward an intention of change:

> "…from now on I am going to email my ward manager when I want to report something. This will increase the visibility far more than steadily reporting it solely to the unit manager."

(FG-2)

All participants recognized the benefits of making preceptorship more visible in general and intended to ensure this in the future.

8.3.2. Attitudes towards preceptorship

Preceptorship of students and apprentices achieved more acceptance as a daily task like other undertakings in the ward and was now regarded as more favorable:

> "There has been a positive change in attitude towards preceptorship in our ward."

(FG-1 and FG-2)

Summarized, these findings indicate that the IPPT-intervention implied some changes: motivation and confidence in preceptorship increased, along with enhanced interprofessional collaboration and mutual understanding between the different groups of health-professionals. Moreover, the visibility of the preceptors' work increased accompanied by expanded acknowledgement and competence in precepting. Nevertheless, many preceptors experienced difficulties in leaving the ward to attend the IPPT-meetings, indicating that organizational and relational support were crucial for succeeding.

9. Discussion

This study aimed to explore possible influences of the IPPT-intervention including IPPT-meetings and organizational support. In the following, we will discuss possible influences of the IPPT-intervention on preceptorship in NHs.

9.1. Individual preceptor experiences

Mentoring in NHs has been considered an individual task characterized by lack of support and acknowledgement from both colleagues and management, poor opportunities to upgrade one's competence, and no time-resources allocated for preceptorship (Kårstein and Caspersen, 2014; Omansky, 2010; Trede et al., 2014). Our data indicated that the IPPT-meetings facilitated dialogue, reflection, and support, representing a valuable opportunity to share experiences of precepting.

Motivation is essential concerning the effort preceptors put into the preceptorship (Hatlevik, 2012). Consequently, the quality of preceptorship correlates with the preceptors' motivation (Solvoll, 2007). The present preceptors reported that the IPPT-meetings strengthened their motivation to continue as a preceptor; hence, the intention of facilitating preceptor-motivation turned out well. Furthermore, precepting students and apprentices was perceived meaningful and important: those precepting apprentices found precepting even more meaningful and interesting compared to those precepting students. Possibly, these preceptors had fewer stimulating challenges in their every-day work, while RNs and PTs with a greater professional autonomy already experienced their work as meaningful and challenging, regardless of precepting students. Possibly, those mentoring apprentices considered precepting as a positive variation of work, and a possibility for growth and competence development rather than an extra burden.

9.2. Relational perspectives – collaboration

Relational aspects such as interprofessional understanding, support, and tolerance were improved, and a higher confidence in preceptorship appeared. However, this positive change in support and recognition was only related to those who precepted students. To understand this finding further, more research is required. Perhaps a revised IPPT-model including solely the preceptors of apprentices might provide deeper understanding by specifically concentrating on this group's experiences.

RNs and PTs experienced more acceptance for spending time with their students compared to those precepting apprentices: the ward hierarchy might explain this finding. The apprentices were at the bottom of the hierarchy indicating hierarchical distinctions in the NH. Such traditional patterns of professional hierarchy build on incomplete interprofessional knowledge among health-professionals (Aase, 2016; Lancaster et al., 2015). This distinction between students and apprentices might reflect a hidden hierarchy representing an obstacle to interprofessional collaboration. In this study, the nurse associates were unsure about the benefit of the interprofessional composition of the IPPT. Their statement "We have apprentices, they have students" corresponds with previous studies (Lancaster et al., 2015; Kenaszchuk et al., 2011) indicating a hierarchical and non-collaborating relationship between different groups of health-care personnel in NHs.

Previous research indicates that interprofessional interventions such as the IPPT may unintendedly strengthen such traditional hierarchies (Baker et al., 2011), and thereby undermine interprofessional understanding and acknowledgement. Evaluations of how to develop interprofessional understanding is required to promote interprofessional collaboration and preceptorship. To facilitate sound working environments for preceptors in NHs and thus improved learning outcomes for students and apprentices, our findings suggest changing the dysfunctional ranking between the different health professionals (Braithwaite

et al., 2016).

9.3. Organizational aspects - general attitudes

Managerial support was crucial to promote preceptors' participation in the IPPT-meetings. Furthermore, managers' support in terms of required time for preceptorship seemed fundamental. Both groups of preceptors expected support and recognition from peers and managers, though they did not experience this. However, during and after the IPPT-intervention this changed positively for those who precepted students; preceptorship was more than before seen to be a responsibility equal to other responsibilities, being increasingly recognized and demanded for.

Conversely, similar positive changes in attitude towards preceptorship of apprentices did not appear, neither from colleagues nor from management. These preceptors experienced less leeway for precepting: to them, it was harder to find necessary time for preceptorship. Organizational support including acknowledgement of the preceptor role is central for preceptors (Huybrecht et al., 2011). The present study revealed a lack of such support and acknowledgement, pointing to a need of cultural change in the organization.

The IPPT-intervention explicitly exposed insufficient organizational support: the IPPT-meetings commonly became a forum for sharing frustration, by which the preceptors experienced relief and support. Nevertheless, the preceptors were not able to express their needs, neither did they ask for change. Instead, they kept the frustration by themselves preserving this common experience.

Aglen et al. (2018) displayed that the NH management supported preceptorship solely by including the precepting tasks in the ward's time schedule. In our study, both managers and preceptors demonstrated an unbending attitude: while the preceptors were not willing to take required steps to make change, the management was not willing to ease preceptorship by allocating individual time resources.

As the IPPT-meetings necessitated time outside the ward, the preceptors experienced stress: participation in the IPPT-meetings caused increased stress related to leaving the ward to attend the meetings. Positively, preceptorship became more visible, but simultaneously also negatively visible in terms of snatching working-hours from the ward. As previous research shows (Huybrecht et al., 2011; Chuan and Barnett, 2012), lack of time and heavy workload were key barriers to the supervision of students' and apprentices' clinical learning.

10. Conclusions and implications

The IPPT-intervention did not lead to any organizational change but resulted in more comfortable supervisors: it influenced positively on preceptor confidence, motivation to work as a preceptor, interprofessional collaboration, and visibility of the preceptors' role at the ward. The IPPT-intervention also provided an arena for the preceptors to share experiences, which strengthened a feeling of "them and we". Being "in the same boat" provided a sense of community and support. However, no actions were taken to improve their conditions.

Lack of personal worktime, a heavy workload, and minor support by the management were key barriers for attending the IPPT-meetings and for high-quality preceptorship. NHs should develop strategies to limit the hierarchy and ranking, and thereby facilitate sound working cultures and clinical learning environments.

Some limitations must be kept in mind. While implementing the IPPT-intervention we overlooked attitudes and perceptions among the different health professionals; this might have strengthened the possible presence of a 'class distinction' or hierarchical ranking. A broader and more detailed reporting and analysis of contextual data could have strengthened the trustworthiness and the transferability of the findings (Porter, 2007; Rolfe, 2007). Seven out of the 16 preceptors participated in the two FGDs representing four wards in the NH. Despite FG-1 comprised of two out of seven invited participants, this FGD was characterized by commitment, faithfulness, deep reflections, and enthusiasm providing rich and important data. Both FGs involved informants representing variation in age, earlier experience of preceptorship, education, and attendance in the IPPT-meetings, which is a strength of this study. The implementation of the IPPT intervention indicated improved conditions for interprofessional preceptorship and collaboration in the NH. Such a team can also help to identify issues that hinder interprofessional collaboration and preceptorship. To better understand these findings, further research should uncover why those who precepted students experienced positive changes, while those precepting apprentices did not do so to the same extend.

Funding

This pilot study has received institutional support from the Norwegian University of Science and Technology.

CRediT authorship contribution statement

Study conception and design, data collection, analysis and interpretation of results, draft manuscript preparation. Finally all authors reviewed the results and approved the final version of the manuscript.

Acknowledgements

We are grateful to the mentors in the NH for their contribution in the study, as well as to the USH for the collaboration.

References

Aase, I., 2016. Interprofessional Teamwork Training for Nursing and Medical Students in Norway. Doctoral thesis 2016. Department of Health Studies. University of Stavanger. https://uis.brage.unit.no/uis-xmlui/handle/11250/2428326 [Last Accessed 27th April 2021].

Aasen, B., 2014. Status report. Interdisciplinary preceptor team at Søbstad health center, Trondheim municipality. [Status report. Tverrfaglige veilederteam ved Søbstad Helsehus, Trondheim kommune]. Development center for nursing homes in Sør-Trøndelag. Retrieved from. http://docplayer.me/17946751-Statusrapport-fra-prosjektet-tverrfaglig-veilederteam.html.

Aglen, B., Sørø, V.L., Orvik, A., Haugan, G., 2018. Preceptorship during health personnel students' clinical studies in nursing homes—an institutional perspective on an intervention. Nurs. Open 0, 1–11. https://doi.org/10.1002/nop2.197.

Algoso, M., Peters, K., Ramjan, L., East, L., 2015. Exploring undergraduate nursing students` perceptions of working in age care settings: a review of the literature. Nurse Educ. Today 36, 275–280.

Baker, L., Egan-Lee, E., Martimianakis, M., Reeves, S., 2011. Relationships of power: implications for interprofessional education. J. Interprof. Care 25, 98–104. https://doi.org/10.3109/13561820.2010.505350.

Barbour, R., 2007. Doing Focus Groups. Sage, London.

Berland, A., Natvig, G.K., Gundersen, D., 2008. Patient safety and job-related stress: a focus group study. Intensive Crit. Care Nurs. 24 (2), 90–97.

Braithwaite, J., Clay-Williams, R., Vecellio, E., 2016. The basis of clinical tribalism, hierarchy and stereotyping: a laboratory-controlled teamwork experiment. BMJ Open 6, e012467. https://doi.org/10.1136/bmjopen-2016-012467.

Carnegie Foundation, 2010. Educating nurses and physicians: toward new horizons. Retrieved from. http://www.macyfoundation.org/publications/publication/educating-nurses-and-physicians-toward-new-horizons.

Chuan, O. L., Barnett, T., 2012. Student, tutor and staff nurse perceptions of the clinical learning environment. Nurse Educ. Pract. 2012 Jul;12(4): 192–7. doi:https://doi.org/10.1016/j.nepr.2012.01.003.

Forber, J., DiGiacomo, M., Davidson, P., Carter, B., Jackson, D., 2015. The context, influences and challenges for undergraduate nurse clinical education: continuing the dialogue. Nurse Educ. Today 35 (11), 1114–1118. https://doi.org/10.1016/j.nedt.2015.07.006.

Fox, L., Onders, R., Hermansen-Kobulnicky, C., Nguyen, T., Myran, L., Linn, B., Hornecker, J., 2018. Teaching interprofessional teamwork skills to health professional students: a scoping review. J. Interprof. Care 32 (2), 127–135. https://doi.org/10.1080/13561820.2017.1399868.

Gilbert, J.H.V., Yan, J., Hoffman, S.J., 2010. A WHO report: framework for action on professional education and collaborative practice. J. Allied Health 39(3, Pt2, 196–197.

Hallin, K., Danielson, E., 2010. Preceptoring nursing students: registered nurses' perceptions of nursing students' preparation and study approaches in clinical education. Nurse Educ. Today 2010;30:296–302.

Hatlevik, I.K.R., 2012. Practice in studies. A survey among practice supervisors, subject teachers and students at five professional educations. [Praksis i studiene. En undersøkelse blant praksisveiledere, faglærere og studenter ved fem profesjonsutdanninger.]. Oslo and Akershus University college of Applied Sciences.

Retrieved from. http://www.hioa.no/Om-HiOA/SPS/filer-sps/arbeidsnotater/Praksis-i-studiene-Hatlevik-2012.

Heiret, J., Ludvigsen, K., 2012. On the trail of a historical-sociological health professional research. [På sporet av en historisk-sosiologisk helseprofesjonsforskning.]. Tidsskrift for samfunnsforskning 12 (4), 455–473.

Holmsen, T. L., 2010. What affects nursing students' safety and learning in clinical practice? [Hva påvirker sykepleierstudentenes trygghet og læring i klinisk praksis?]. Vård i Norden. 30(1):24–28. doi:https://doi.org/10.1177/010740831003000106.

Husebø, A. M. L., Storm, M., Våga, B. B., Rosenberg, A., Akerjordet, K., 2018. Status of knowledge on student-learning environments in nursing homes: a mixed-method systematic review. J. Clin. Nurs. 2018 Apr;27(7–8):e1344-e1359. doi:https://doi.org/10.1111/jocn.14299. Epub 2018 Mar 30. PMID: 29399921.

Huybrecht, S., Loeckx, W., Quaeyhaegens, Y., De Tobel, D., Mistiaen, W., 2011. Mentoring in nursing education: perceived characteristics of mentors and the consequences of mentorship. Nurse Educ. Today 2011 Apr;31(3):274–8. doi:https://doi.org/10.1016/j.nedt.2010.10.022. Epub 2010 Nov 12. PMID: 21074908.

Jerpseth, H., 2017. Older Patients With Late-stage COPD: Care and Clinical Decision-making. A Qualitative Study With Perspectives of Patients, Nurses and Physicians (Doctoral thesis.). Universitetet i Oslo, Det medisinske fakultet, Oslo, 2017. Retrieved from. https://www.duo.uio.no/handle/10852/55713.

Kårstein, A., Caspersen, J., 2014. Clinical studies in the education of health and social professionals. A literature review. Vol. Rapport, 16/2014, Retrieved from: https://brage.bibsys.no/xmlui/bitstream/handle/11250/280127/NIFUrapport2014-16.pdf?sequence=1&is- Allowed=y [last accessed 29 August 2018].

Kenaszchuk, C., MacMillan, K., Van Soeren, M., 2011. Interprofessional simulated learning: short-term associations between simulation and interprofessional collaboration. BMC Med. 9, 29 (2011). doi:https://doi.org/10.1186/1741-7015-9-29.

Kitzinger, J., 1994. The methodology of focus groups: the importance of interaction between research participants. Sociol. Health Illn. 16 (1), 103–121. https://doi.org/10.1111/1467-9566.ep11347023.

Lancaster, G., Kolakowsky-Hayner, S., Kovacich, J., Greer-Williams, N., 2015. Interdisciplinary communication and collaboration among physicians, nurses, and unlicensed assistive personnel. J. Nurs. Scholarsh. 2015 May;47(3):275–84. doi:https://doi.org/10.1111/jnu.12130. Epub 2015 Mar 19. PMID: 25801466.

Mackenzie, A., Craik, C., Tempest, S., Cordingley, K., Buckingham, I., Hale, S., 2007. Interprofessional learning in practice: the student experience. Br. J. Occup. Ther. 2007;70(8):358–361. doi:https://doi.org/10.1177/030802260707000806.

Malterud, K., 2012. Systematic text condensation: a strategy for qualitative analysis. Scand. J. Public Health 40 (8), 795–805. https://doi.org/10.1177/1403494812465030.

McCaffrey R., Hayes, R. M, Cassell, A., Miller-Reyes, S., Donaldson, A., Ferrell, C., 2011. The effect of an educational programme on attitudes of nurses and medical residents towards the benefits of positive communication and collaboration. J. Adv. Nurs. 2012 Feb;68(2):293–301. doi:https://doi.org/10.1111/j.1365-2648.2011.05736.x. Epub 2011 Jun 16. PMID: 21679224.

Meld. St. 13, 2011–2012. Education for Welfare. [Utdanning for velferd]. Ministry of education. Retrieved from. https://www.regjeringen.no/no/dokumenter/meld-st-13-20112012/id672836/.

Meld. St. 26, 2014–2015. The primary health service of the future-proximity and wholeness. [Framtidens primærhelsetjeneste - nærhet og helhet]. Ministry of Health and Care Services. Retrieved from. https://www.regjeringen.no/no/dokumenter/meld.-st.-26-2014-2015/id2409890/.

Meld.St. 11. (2014–2015). Quality and patient safety 2013. [Kvalitet og pasientsikkerhet 2013]. Ministry of Health and Care Services. Retrieved from https://www.regjeringen.no/no/dokumenter/Meld-St-11-20142015/id2345641/.

Midgley, K., 2006. Pre-registration student nurses perception of the hospital-learning environment during clinical placements. Nurse Educ. Today. 2006 May;26(4):338–45. doi:https://doi.org/10.1016/j.nedt.2005.10.015. Epub 2006 Jan 10. PMID: 16406618.

Omansky, G. L., 2010. Staff nurses' experiences as preceptors and mentors: an integrative review. J. Nurs. Manag., 18(6), 697–703. Retrieved from: doi:https://doi.org/10.1111/j.1365-2834.2010.01145.x.

Orvik, A., Larun, L., Berland, A., Ringsberg, K.C., 2013. Situational factors in focus group studies: a systematic review. Int. J. Qual. Methods 12 (1), 338–358. https://doi.org/10.1177/160940691301200116.

Patton, M.Q., 2002. Qualitative Research & Evaluation Methods. Sage Publications, Thousand Oaks, Calif.

Pfaff, K. A., Baxter, P. E., Jack, S. M., Ploeg, J., 2014. Exploring new graduate nurse confidence in interprofessional collaboration: a mixed methods study. Int. J. Nurs. Stud. 2014 Aug;51(8):1142–52. doi:https://doi.org/10.1016/j.ijnurstu.2014.01.001. Epub 2014 Jan 15. PMID: 24486164.

Porter, S., 2007. Validity, trustworthiness and rigour: reasserting realism in qualitative research. J. Adv. Nurs., Volume 60, Issue 1. Retrieved from: doi:https://doi.org/10.1111/j.1365-2648.2007.04360.x.

Prestbakmo, R. T., 2006. A study of the preceptor conversation between a contact nurse and a student. [En studie av veiledningssamtalen mellom kontaktsykepleier og student]. Vård i Norden. 2006;26(2):36–39. doi:https://doi.org/10.1177/010740830602600208.

Reeves, S., Fletcher, S., Barr, H., Birch, I., Boet, S., Davies, N., Kitto, S., 2016. A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. Med. Teach. 38 (7), 656–668. https://doi.org/10.3109/0142159X.2016.1173663.

RETHOS, 2019. National guidelines for health and social sciences education (RETHOS). Retrieved from: https://www.regjeringen.no/no/tema/utdanning/hoyere-utdanning/utvikling-av-nasjonale-retningslinjer-for-helse–og-sosialfagutdanningene/id2569499/.

Rolfe, G., 2007. In response to Porter S. Validity, trustworthiness and rigour: reasserting realism in qualitative research. Journal of Advanced Nursing 60 (1), 79–86. J. Adv. Nurs. 60, 1, 108–109. https://doi.org/10.1111/j.1365-2648.2007.04366.x.

Slagstad, R., Messel, J., 2014. Professional Stories. [Profesjonshistorier]. Oslo: Pax.

Solvoll, B-A., 2007. Care skills as a pedagogical project - a field study in nursing education. [Omsorgsferdigheter som pedagogisk prosjekt - en feltstudie i sykepleierutdanningen].(Doctoral thesis). University of Oslo. The faculty of Medicine. Department of Nursing Science and Health Sciences. [in Norwegian].

Trede, F., McEwen, C., Kenny, A., O'Meara, P., 2014. Supervisors' experiences of workplace supervision of nursing and paramedic students in rural settings: a scoping review. Nurse Educ. Today 34 (5), 783–788. https://doi.org/10.1016/j.nedt.2013.10.003.

Trede, F., Sutton, K., Bernoth, M., 2016. Conceptualisations and perceptions of the nurse preceptor's role: a scoping review. Nurse Educ. Today 36, 268–274. https://doi.org/10.1016/j.nedt.2015.07.032.

Universitets- og høgskolerådet, 2016. Quality in practical studies in health and social sciences. Kvalitet i praktiske studier innen helse- og samfunnsvitenskap. https://www.regjeringen.no/contentassets/86921ebe6f4c45d9a2f67fda3e6eae08/praksisprosjektet-sluttrapport.pdf.