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The effects of reflective counseling on learning outcomes for undergraduate students in social education

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SAMMENDRAG

Utdannings- og forskningsdepartementet fremhever evnen til refleksjon som en betydningsfull variabel for å kunne møte pasientenes behov for kvalitet og koordinerte tjenester. Det ble tilrettelagt for reflekterende veiledning for intervensjonsgruppen midtveis i praksisperioden for å øke studentenes refleksjonsferdigheter, og for å se om disse ferdighetene ville influere på studentenes læringsutbytte. Spørsmål som dekket læringsutbyttebeskrivelsene for praksisperioden, og selvrapporterte erfaringer fra refleksjonsseminaret ble besvart av 58 studenter før og etter praksisperioden. Studentene ble tilfeldig fordelt til reflekterende veiledning og tradisjonell veiledning. Resultatene viser at studentene som mottok reflekterende veiledning snakket mer om sine erfaringer fra praksis, noe som indikerer et personlig læringsutbytte og en mer reflektert atferd sammenlignet med kontrollgruppen. Det var ingen forskjeller når det gjaldt akademisk læringsutbytte. Studien peker på betydningen av reflekterende veiledning som et verktøy for å forsterke evidensbasert praksis, men det kreves lengre varighet for å oppnå effekt når det gjelder akademisk læringsutbytte.

Nøkkelord

evidensbasert praksis, veiledning, feedback, læring, selvevaluering, refleksjon


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ABSTRACT

According to the Norwegian Ministry of Education and Research, practitioners' ability to reflect is a significant variable in meeting the need of patients for quality and coordinated services. Reflective learning seminars were organized for an intervention group midway through practice placement in order to increase student reflection skills, and to see if these skills would influence the students' learning outcomes. Questionnaires covering concrete learning goals and subjective experiences were administered before and after the internship period to fifty-eight students. These students were randomly assigned to either reflective or ordinary counseling. Results showed that the reflective counseling group talked more about their experiences from practice, indicating personal learning outcomes and more reflective behavior, compared to the control group. There were no differences in academic learning outcomes. The study points to the importance of reflective counseling as a tool for enhancing students' evidence-based practice, but longer durations of counseling might be needed to achieve an effect on academic learning outcomes

Keywords

evidence-based practice, counseling, peer feedback, learning, self-rating, reflection

INTRODUCTION

To be educated is not to have arrived at a destination; it is to travel with a different view (Peters, 1967). In the Care Plan 2015 and 2020, the Norwegian Government presents future challenges for healthcare services to ensure evidence-based practice (Meld. St. nr. 16 (2011–2015); Meld. St. nr. 29 (2012–2013)). Practitioners' ability to reflect is a significant variable in meeting the need of patients for quality and coordinated services. The Norwegian Ministry of Education and Research defines reflection as a core value in higher education and research, and points to the national task of increasing evidence-based practice, by putting a specific emphasis on skills like *being able to reflect on and evaluate one's own practice* (St.meld. nr. 7 (2007–2008)). This is also one of the top topics for universities, educating future healthcare workers, also exemplified in the Strategy Plan towards 2020 for Oslo and Akershus University College (Høgskolen i Oslo og Akershus, 2013). Thus, there seems to be a consensus that reflection is a necessary tool for evidence-based practice.

Higher education institutions in Norway have been encouraged by The Norwegian Directorate of Health¹ to initiate projects to improve the quality standard and learning outcomes for students in practice placement.

1. The Norwegian Directorate of Health is an executive agency and competent authority subordinate to the Norwegian Ministry of Health and Care Services.

Reflection and critical thinking are both intellectual processes (Lindahl, Dagborn, & Nilsson, 2009) emphasizing reasoning, analytical, cognitive and strategic processes. Encouraging critical thinking and reflection may facilitate the application of scientific knowledge to solve practical problems, which can be considered a key skill involved in solving unique or complex problems (Pettersen & Løkke, 2004).

The development of critical thinking skills takes time and depends on a creative teaching and learning approach (Banning, 2006; Girot, 1995). While different definitions of the term critical thinking and different explanations of the processes critical thinking consists of can be found in the literature, most scholars agree that the term involves analysis, evaluation, interpretation, and explanation that goes beyond ordinary problem-solving (Bitner & Tobin, 1998; Edwards, 2007; Raymond & Profetto-McGrath, 2005; Simpson & Courtney, 2002).

Reflection is described as a complex process, which many learners often find difficult (Walsh, 2009). Reflection is a process of reviewing an experience of practice in order to enable, for example, students to see issues from a variety of perspectives and guiding them to new insights by giving them the opportunity to both support and challenge each other (Argyris, 1982; Brookfield, 1993; Manning, Cronin, Monaghan, & Rawlings-Anderson, 2009). This will further depend on a supportive climate, both to develop a positive relationship, and to provide the students with specific insight into their performance (Clynes & Raftery, 2008). Facilitating reflection skills requires a sophisticated pedagogy. One technique is to arrange for supportive and appreciative seminars (Argyris, 1982; Banning, 2006; Brookfield, 1993; Higgins & McCarthy, 2005; Murphy, 2004; Schön, 1983). Dickson (2006) points to reflection as a type of response re-presenting an understanding of a significant message, which can be contrasted with questions. By asking questions you thereby enhance the importance of what has been said.

Reflection as a learning process is not new, and can be traced to Aristotle's distinction between technical, practical and theoretical forms of reasoning (Schön, 1983).

The word reflection means originally *a bending or turning back*. To reflect means to establish a distance between yourself and your practice (Hargreaves, 2004). In order to learn from reflection the practitioner must examine the effects of events, actions and interactions on him or herself. Consideration must also be given to how the practitioner impacts on those same events, actions and interactions. Such examination also encourages practitioners to notice and to value their intuitive, or more spontaneous responses. Hence the process of learning from reflection requires more than intuition. Intuition must be critiqued and considered alongside thoughtful analysis and concrete data (Davys & Beddoe, 2010, p. 91). Reflection is a method whereby you learn from experience, and this promotes what is defined as "deep learning"

(Murphy, 2004; Schön, 1983). Such a dynamic view of reflection is also promoted by Argyris (1982) when he claims that learning only takes after we both understand our own experiences and after others react to our experiences. Experience in itself is no guarantee that learning will occur.

Dickson (2006) refers to Brammer and MacLeod (2003) when he points out that reflecting is commonly regarded as going beyond the level of what was just said is significant, worthy of attention and important. It conveys listening, and promotes deep understanding (p. 170).

THEORETICAL PERSPECTIVE

Whereas the national task of increasing evidence-based practice (St.meld. nr. 7 (2007–2008)) emphasizes skills such as being able to reflect on and evaluate one's own practice, there is relatively little empirical research on *how to* increase students' reflection and critical thinking (Bjørk & Bjercknes, 2003; Brown, Herd, Humphries, & Paton, 2005; Higgins & McCarthy, 2005; Kyrkjebø & Hage, 2005; Vågstøl, 2007).

In the framework plan for social education, determined by the Norwegian Ministry of Education and Research (Utdannings- og forskningsdepartementet, 2005), it appears that a social educator should have the ability to explore problems presented in a systematic and reflective way.

The current study makes use of Kolb's experiential learning model for facilitating students' reflection skills during a period of field practicum. In experiential learning theory, an immediate concrete experience is the basis for observations and reflection. The reflections are then assimilated into a "theory" from which the implications for future action are deduced (Cox, Bachkirova, & Clutterbuck, 2010). Research shows that guidance and reflection contribute to increased learning effects for students doing field practicums (Bjørk & Bjercknes, 2003; Higgins & McCarthy, 2005). However, to generate learning effects, reflection has to be linked to specific experiences (Aars, 2006; Burnard, 2004).



The model emphasizes that both student involvement, as well as the perceived relevance of materials, are increased through effective questions, active listening, and recognition of facts and relationships regarding the case at hand. Such insights may then facilitate action and motivation, which leads to advances toward the goal of solving problems related to the case. Viewing the case from several perspectives allows the owner of a problem to explore multiple alternative solutions, as well as to explore judicial, ethical, and scientific ways of assessing the case. This dynamic process also corresponds to the evidence-based practice model (fig. 2), which is considered essential for the quality assurance of services in the healthcare and education sectors (Nortvedt, Jamtvedt, Graverholt, Nordheim, & Reinar, 2012).



Knowles, Holton and Swanson (2005) also emphasize the importance of active involvement, relevance, goal orientation and motivation to enhance students' learning outcomes.

Counseling models based on learning and reflection offer the flexibility needed for practitioners to adjust theory and practice to the ever-changing and complex shapes of the modern context (Davys & Beddoe, 2010). In this term reflective practice bridges the theory- practice gap. Sullivan and Shulman (2005) refer to the same relationship when they claim that conditions for learning has to be arranged with an emphasis on utility and application in order to integrate theory and practice.

AIM OF THE PRESENT STUDY

We aim to investigate whether the use of a structured reflective learning seminar would increase the ability of the students in the intervention group (the group given reflective counseling) to be reflective, and if this ability to reflect would positively influence those students' learning outcomes during a period of field practice.

METHODS

Participants

Fifty-eight second year undergraduate students, enrolled in a bachelor's programme in social education, were recruited as participants. More than two-thirds of the participants were female, and the age range for the students was between thirty and forty years of age. All participants were given oral and written information about the study, and all signed giving their informed consent before their inclusion in the study.

This study was approved by the Data Protection Official for Research, Norwegian Social Science Data Services (NSD), prior to the data gathering.

Design and dependent variables

The intervention/reflective group and the control group each consisted of smaller sub-groups. A group design was used with randomization between sub-groups. Randomization was conducted by a professor at the institute, blind to the purpose of the study. The intervention sub-groups ($n=5$) were exposed to a structured reflective learning seminar based on Kolb's learning cycle (fig. 1, fig. 3). The control sub-groups ($n=4$) participated in ordinary counseling conditions with more incidental reflection on field experiences (fig.3). Alongside this, the lecturers in charge of the midway practicum seminars (involving both the reflective sub-groups and the control sub-groups) made written notes during these seminars, about the ongoing experiences of the students, and these were later analyzed by the lecturers involved in the study. Two associates were introduced to, and trained in, applying the reflective learning model, in addition to the first author, who administered the intervention.

Both groups filled out a multiple choice knowledge test before and after the practicum period (the pre-test and the post-test). The test covered learning targets attached to rehabilitation skills, such as: i) patient legal rights, ii) service provider obligations, iii) data collection, iv) ethical concerns and v) intervention techniques; twenty-four questions altogether. Scores on the knowledge tests were analyzed as paired t-tests, comparing within-group results before, midway through and after the practicum period.

At the end of the study, participants also filled out a questionnaire covering their own evaluation of experiences with the structured reflective learning model they were exposed to. The questionnaire included six items which the students were asked to score using a 5-point Likert scale (score: completely disagree, disagree, neutral, agree, completely agree). The six items were: 1. students' own preparation before counseling, 2. talking about their experiences from the practicum, 3. receiving peer feedback, 4. receiving feedback from their counselor (lecturer), 5. giving peer feedback, and 6: case discussion.

In the analysis, these items were analyzed separately using an unpaired t-test, comparing the two groups at the end of the intervention.

FIG. 3. MIDWAY PRACTICUM SEMINAR

	Number of sub-groups	Number of students in each sub-group	Duration time, hours	Content
Intervention group	5	5–6	5	<p>Mandatory preparation (in writing):</p> <ul style="list-style-type: none"> – Make a brief presentation of practice placement – Patients legal rights for services – Rehabilitation; survey, aim and arguments – Action and evaluation – Presenting a problem with a case focus from practice placement <p>Presentation of the agenda</p> <ul style="list-style-type: none"> – Each in turn presents a problem with a case focus from practice placement – Act according to the duty of confidentiality <p>Expectations on peer feedback (oral orientation)</p> <ul style="list-style-type: none"> – Listening – Ask exploratory questions – Give positive feedback – Notice relevant research and literature on the subjects presented <p>The lecturer guide the group members in turn to</p> <ul style="list-style-type: none"> – challenge the student in focus with exploring questions to problems presented – remind students to give peer feedback <p>The lecturer</p> <ul style="list-style-type: none"> – reinforce peer feedback, and give her own comments to the problems and reflections presented <p>Finally the lecturer asks the student in focus to reflect and conclude upon</p> <ul style="list-style-type: none"> – The feedback received, e.g. to see if there are clues for behavioral change – Learning outcomes – Learning outcomes according to a mandatory written assignment
Control groups	4	5–6	4–5	<p>Presentation of the agenda</p> <ul style="list-style-type: none"> – Each in turn presents a problem with a case focus from practice placement – Act according to the duty of confidentiality <p>After each presentation the lecturer</p> <ul style="list-style-type: none"> – Asks the sub-group if there are any questions and comments to be given – Asks the student presenting if there are any difficulties or questions to be asked – Asks if the student in focus have any questions to the mandatory written assignment, e.g. how to get started, special arrangements to be done, etc.

Procedure

The procedure was accomplished midway through the student's practicum module of a nine-week duration. Guided reflection aims to assist students in achieving a deeper understanding of field-related issues. Since reflection is an open inquiry, we ensured this happened in a supportive and appreciative social climate within the group.

The reflective seminar for the intervention sub-groups lasted for five hours, with five students participating, approximately forty-five minutes per student presenting their case. The counselor (the lecturer) led the process by letting each student in turn present their case from their practicum, and by prompting peer students on appropriate questions and supportive peer feedback. Kolb's experiential learning model was used as a pedagogical framework for reflection on each presentation of field experience. The learning model (fig. 1) followed the cycle of experiential learning with specific tasks at each stage for both counselor and student. The cycle was repeated for each student. The first step started with the highlighting of a *concrete experience*. The students were asked to present their case according to the learning outcome variables: i) patient legal rights, ii) service provider obligations, iii) data collection, iv) ethical concerns and v) intervention techniques. The second step included *reflective observations*, where the students, in turn, were challenged to view the concrete situations from different points of view by asking questions (what, when, how, why, etc.). They were told not to give *any* advice at this stage, but instead to let the questions explore the possibilities. In the next step, *abstract conceptualization*, the students were challenged to bridge the practice-theory gap by exploring relevant research on the topic at hand. The counselor (the lecturer) reminded the students of the importance of dynamic peer feedback, to provide the students with specific insights into their performance. After cycles with questions around the table, the students in focus (the owners of each problem) commented on the initiatives, what he/she had learned from the experience, new learning to be aware of, and conclusions to be used in further practice placement, etc. The last and fourth step included *active experimentation*, in which the students were supposed to plan and try out eventual new learning. Peer feedback such as challenging questions and encouragement included, for instance: How will you do it?; When will you do it?; What else can you do?; Good work; Be patient; etc.

The control group did not have mandatory preparation, and were not given special instructions on how to give peer feedback. The students presented their cases from their field practicums, but did not follow a structured learning model in order to encourage reflective knowledge by questioning their reasoning.

RESULTS

Results showed that one item in the self-rating questionnaire was significantly different between the groups: The students in the reflective seminar group reported higher contentment in talking about their own experiences, indicating personal learning outcomes.

The students in the control seminar group frequently gave each other advice, and were less often giving peer feedback, for example by asking questions to encourage reflections on the problems and experiences presented.

However, when comparing the groups at the end of the intervention period, there were no significant changes in the groups in the test of knowledge skills from the pre-test to the post-test.

TABLE 1

Measure	Reflective seminar group (n = 29) mean (sd)	Control group	t	p
Pre-test knowledge	17.9 (2,9)	16,7 (3,1)	.282	.78
Post-test knowledge	18.5 (2,6)	18,4 (3,2)	.129	.90
Preparation	4.0 (1,2)	4,1 (.9)	.760	.72
Talking about case experience	4.9 (.8)	4.5 (.9)	2.104	.04*
Receiving peer feedback	4.6 (1.0)	4.5 (.9)	.228	.82
Receiving feedback from lecturer	4.6 (1.0)	4.7 (.8)	.154	.88
Giving peer feedback	4.3 (1.0)	4.3 (.8)	.026	.98
Discussing case	4.7 (1.0)	4.6 (1.2)	.351	.73

DISCUSSION

The study aimed to investigate whether the use of a structured reflective learning seminar would increase the students' ability to be reflective, and if this ability would positively influence the students learning outcomes during a period of practicum.

Even though this study has provided insight in a reflective learning model and the process of peer feedback, it also has some limitations. First, one of the counselors (lecturer) in the study was also the first author and this may have affected the results. There are no reliability assessments or validity measures. However, the scorings of the dependent measures were well known from required reading, and the counselors' procedure for shaping and guiding students in the different steps of Kolb's reflective learning model was written, practiced and easy to follow. Nevertheless, both measures should be included in future research. Second, we have only used self-rating as a measure. Future research should include essays and not quizzes (because of the risk of guess-

ing), alongside, for example, focus group interviews, to assess learning outcomes and to better discriminate between the different counseling methods. Third, the tests were quite extensive, which may have tired the students and minimized group differences. Fourth, the time between our two assessments was four to five weeks, even though the students' period of practicum lasted for another four weeks. It is quite possible that with a longer observation period, differences between the groups would begin to emerge. Fifth, two of the lecturers administered both the intervention and the control group, and the structured practice in the intervention groups may also have influenced the counseling practice in the control group. Further influence of interpersonal variables and structural features may have occurred, for example the counselor (lecturer) may have followed the model too strictly, lacking flexibility which may prevent spontaneous feedback and maximum learning outcomes. Boud, Cressey, and Docherty (2006) emphasize this aspect as *over-formalization* of reflection processes, which may provoke resistance and can therefore inhibit learning.

Manual-based treatments may be criticized in a similar way. This critique, which focuses on the lack of consideration for individual variation as a result of manuals being used, has generated much debate (Reid & Webster-Stratton, 2001). To avoid this problem, it is essential to allow for flexibility and context-dependent action when employing manuals.

The results in the current study show a significant difference in students' personal learning outcomes for the intervention group, measured as a communication skill in talking about their own experiences. However, no significant difference was found in academic learning outcomes between the control group and the intervention group. The intervention group more spontaneously ended up discussing practicum topics after finishing the stages of the reflective learning model. This may indicate that reflection helped them develop altered perspectives of situations and to identify options for care management, empowered them in problem solving, and in making links between theory and practice. As for the control group, discussions occurred more infrequently. According to Manning et al. (2009), Mjaaland and Finset (2009) and Goulston (2010), there is a positive effect from talking about your own matters and problems in a supportive setting. It contributes towards decreasing stress, making you more optimistic and active in searching for solutions. Armbruster, Patel, Johnson, and Weiss (2009) highlight much of the same in presenting student-centered teaching methods as a key to enhancing reflection *on* action, and in this way facilitating reflection *in* action.

Personal learning outcomes may facilitate problem solving, and is in fact said to be underestimated as an important source of learning, as well as a strategy for strengthening professional identity and qualifications (Engeström, Mietinen, & Punamäki, 1999; Ewell, 1997; Paavola & Hakkarainen, 2005; Vygotskij, 2006).

By sharing experiences in a supportive and appreciative seminar, the students learned to inquire, share ideas, clarify differences and construct new understandings. Through peer process feedback, the students were trained in formulating appropriate questions, giving and receiving positive feedback, and explaining issues. This in turn may have helped them to construct new understandings and expand alternative possibilities for solutions. The personal learning outcomes found in this study may indicate what Burns and Bulman (2000) identify as one of four reflection outcomes, here showing *new perspectives on experience*. The participants may have widened the possibility horizon by benefiting from constructive reinforcing feedback.

Clynes and Raftery (2008, p. 406) mention feedback as an interactive process which aims to provide students with insight into their performance, whereas Rowntree (1987, p. 27) points to feedback as an essential element of student learning by describing it as the “lifeblood of learning.” Routine for supportive and constructive feedback is also mentioned as crucial in the process of learning, and decisive for learning outcomes (Argyris, 1982; Brookfield, 1993; Kamp et al., 2013; Murphy, 2004; Schön, 1983). This may point to the advantage of a structured reflective learning model as a tool to shape reflective skills in order to analyze and improve one’s own practice.

So why is it that we can see no obvious difference between the pre-test and the post-test in academic learning outcomes? It is likely that one of the answers lies in the time span of this study, which may have been too short. Learning reflection skills takes time, and it is dependent on exposure to specific theoretical content, and the use of creative teaching and learning approaches (Giot, 1995). Different studies emphasize this notion by pointing to crucial stages of professional qualifications from novice to expert, where time and experience is of vital importance to incorporate both research findings, clinical expertise and patient preferences (Cleary-Holdforth & Leufer, 2008; Dreyfus & Dreyfus, 1986; Sullivan & Rosin, 2008). In addition to *New Perspectives on Experience*, Burns & Bulman (2000) identify three other possible outcomes from reflection, where time also seems to be vital. These are: *Change of Behavior, Readiness for Application and Commitment to Action*. However, the present study followed students for only a brief period. This may be one explanation as to why there was no discernible increase in academic learning outcomes.

The reflective learning model (fig. 1) may be an answer to achieve the authorities expectations to enhance students’ reflection skills, in implementing evidence-based practice. Stetler et al. (1998) call this “affirmed experience,” which means that experiential observations or information have been reflected upon, externalized, or exposed to explorations of truth and verification from various sources of data. Facilitating reflection *on* action can hopefully enhance students’ ability to reflect critically *in* practice as an assumption for best practice and learning outcomes. There are grounds for optimism, as research shows that guided reflection contributes towards strengthening the academic focus and the perceived self-efficacy of the student, by providing continuous con-

structive criticism of the application of skills in practice (Bjørk & Bjerknæs, 2003; Higgins & McCarthy, 2005). Guided reflection shapes professional behavior by provided feedback on academic, judicial, and ethical issues, which prompts further reflection on part of the student.

In recent years, relatively precise guidelines from government agencies responsible for health and education have recommended a more extensive focus on the measurement of the quality of services Meld. St. 13 (2011–2012); Meld. St. 16 (2011–2015). This is also emphasized in laws governing health services, with Lov om kommunale helse- og omsorgstjenester (2011), kapittel 4, §4-2, stating that “those who provide healthcare services must ensure that their institution works systematically to increase the quality of care for patients and other users of the services.”

In this study, Kolb’s learning cycle is used as a tool to promote reflection skills in order to improve healthcare services by ensuring there is evidence-based practice. This is done by providing a context for academic reflection where problems are defined and analyzed, questions are raised, constructive criticism is provided, ethical issues are assessed, and theory and research is discussed.

Peer feedback has the potential to be a powerful tool to enhance individual performance (Sluijsmans, Brand-Gruwel, & Van Merriënboer, 2002; Van Gennip, Segers, & Tillema, 2009), and to facilitate self-evaluation by clarifying what good performance is (Adcroft, 2011), and thereby identifying the gap between a student’s current and desired behavior. Kamp et al. (2014) even point to peer process feedback as a tool for enhancing the effectiveness of collaborative learning environments.

Results indicate that the reflective learning seminar enhanced the students’ abilities to more actively search for solutions in light of new perspectives on their experiences. A focus for future research can be the quality of reflection and goal-setting, on how students’ learning outcomes on verbal behavior skills can be put into practice. This is in line with Prins, Sluijsmans, and Kirschner (2006), who stress that in order to reflect and act upon feedback received, students should be provided with clues for behavioral change and should be stimulated to formulate goals for improvement. They also assert the importance of formulating actions that need to be taken in order to close the gap between their current progress and desired behavior.

Reflection combined with goal-setting can, according to Sargeant, Mann, Sinclair, Van der Vleuten, and Metsmakers (2008), be a useful tool for increasing feedback acceptance and use.

The present study followed students for only a brief period, and longer durations might be needed to detect significant increase in academic learning outcomes, change of behavior, and commitment to action in practice. Further research could contribute to a broader answer to the question of whether per-

sonal learning outcomes can facilitate academic learning outcomes for students in practice placement. However, future research direction can, to a larger degree, include and inform practicum educators about the importance of reflection, and also prepare them for their role as facilitators in students' or learners' development of reflective practice skills.

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