Experiences of occupational therapists and occupational therapy students in using the Assessment of Communication and Interaction Skills in mental health settings in Norway

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Introduction: This study investigated the utility of the Assessment of Communication and Interaction Skills (ACIS) in mental health settings, as experienced by Norwegian occupational therapists and occupational therapy students.

Method: An informal draft translation was used to investigate the appropriateness of the assessment for mental health practice. Focus group interviews were conducted with three occupational therapy practice educators working in mental health settings and six occupational therapy students on practice placement, who used the ACIS during an 8-week mental health practice placement in 2009. The focus groups aimed to explore the experiences of using the translated ACIS in working with clients.

Findings: Three main themes emerged: observing with the ACIS, scoring the ACIS and using the ACIS in clinical practice.

Conclusion: The ACIS has the potential for making a positive contribution, both for the individual client and for the larger team of multiprofessional staff, by giving a structure and terminology that supports precise observation and reporting. Questions were raised as to how the therapist's level of engagement during the observation may have an impact upon the client's performance. The process of scoring and giving feedback concerning the client's skills may be emotionally challenging for therapists, students and clients, and issues about how to give feedback to clients require consideration.

Introduction

An important focus for occupational therapy in mental health practice is clients' communication and interaction skills. These skills are essential for establishing and maintaining positive relationships with others, an interpersonal aspect that permeates many daily occupations (Kielhofner 2008). As indicated by earlier studies, such skills are often impaired during severe mental illness (Ikebuchi 2007) and can raise doubts about clients' ability to care for themselves, as in cases where clients speak in a disorganised way or act aggressively towards other people. For clients with non-psychotic disorders, communication and interaction skills are less affected than for those clients with psychotic disorders (Forsyth et al 1999). However, communication and interaction skills are also important for non-psychotic clients' ability to cope with problems, which in turn may affect the course of illness or occupational participation.

The Assessment of Communication and Interaction Skills (ACIS)

The ACIS was developed within the Model of Human Occupation (MOHO) framework (Kielhofner 2008), which conceptualises different types of skills as the building blocks of occupational performance. Occupational skills

can be divided into three different types: motor, process, and communication and interaction skills.

Communication and interaction skills are required for expressing intentions and needs, and for coordinating behaviours in interaction with others (Forsyth et al 1999). The ACIS is an observer-rating instrument, which provides a picture of these skills when they are observed from the actions of a particular client in a particular context. To ensure that the situation is meaningful for the client, it is preferable that the social context and the tasks involved are chosen by the client and the therapist in collaboration. The context should also resemble the client's natural environment as much as possible because habituation will influence performance.

The ACIS consists of 20 skill items (Forsyth et al 1998, 1999). These skills can tentatively be placed along a challenge continuum, from easier to harder, and they concern three interaction dimensions: physicality, information exchange, and relations. The client is measured on each item on a four-level scale, where 4 indicates that the skill is present in a degree that supports and maintains the present interaction and 1 indicates that the skill is deficient in a way that causes interaction to stop (without the intervention of others).

Questions remain about the validity of the ACIS in different situations and contexts; the evidence so far suggests that the scores are different when used in different contexts of activities and social surroundings (Kjellberg et al 2003, Haglund and Thorell 2004). This implies that a variety of tasks, situations and contexts should be used in the ACIS assessments of clients.

Few studies provide information concerning clinical experiences using the ACIS. A Swedish study reported that clinicians considered it a structured method for observation, which was easy to administer and could readily be incorporated into clinical practice (Haglund and Thorell 2004). A Danish study of the clinical implementation of the ACIS generated similar positive experiences (Nielsen and Andersen 2006). However, problems occurred in situations where the client had little motivation to participate in the assessment procedure. In some cases, the occupational therapists found it hard to convey to the client both the purpose and the results from the assessment. The occupational therapists found it particularly challenging to give direct feedback to the clients and experienced a high degree of intimacy with the clients in these situations (Nielsen and Andersen 2006).

There is no literature indicating that the ACIS has been systematically used in Norway. This may be because the use of standardised instruments is not firmly embedded in Norwegian occupational therapy practice, particularly in mental health. Access to Norwegian versions of established instruments relevant for mental health practice is limited. However, evidence-based practice is considered vital for the future of the profession and, internationally, formal individual assessment is a core element of practice in the mental health setting (Lloyd and Williams 2010, Wimpenny et al 2010).

Aim of the study

The ACIS assessment form was earlier translated into Norwegian for teaching purposes (Ellingham and Opsahl 2003). This draft translation has not yet been validated by back-translating it into English. Insight gained into the potential clinical utility of the ACIS will be a basis for decisions about a systematic translation and validation process. To obtain such insight, this study investigated how practitioners and students experienced using the draft translation of the ACIS.

Method

Clinical setting and clients

The participating occupational therapists, who were practice educators and occupational therapy students, were located at different mental health departments in the Oslo region. These departments provided services to people who had severe and enduring mental health problems, mainly psychotic disorders, many of whom were not voluntarily admitted to hospital. The most frequent diagnosis was schizophrenia, but the client group also included people with paranoid psychosis, major depression and bipolar disorder.

Using the ACIS in occupational therapy practice

A programme was designed for 8 weeks during a practice placement, which was followed by six students and their practice educators and consisted of the elements below.

Week 1, Seminar: ACIS concepts, use of the instrument and rating instructions were introduced in a 3-hour seminar based on the original ACIS manual (Forsyth et al 1998) and the draft translation of the instrument. Both students and practice educators were encouraged to read the manual, and to consult both the manual and the lecture notes from the seminar regularly during the programme. One of the authors (BE) planned and administered the seminar; he was familiar with the development of MOHO and had taught MOHO since the late 1980s.

Weeks 2-7, Clinical experience: The students and practice educators, in collaboration, planned and observed social activities in a range of situations for clients with whom they came into contact in their practice, and then scored the ACIS directly after the observations. The goal was that each student would have performed and scored at least one ACIS observation weekly, that is, seven to eight observations in total, during the practice placement. The students were invited to discuss the ACIS observations, their ratings and their clinical use in supervision sessions with their educator during their placement.

Week 8, Focus groups: Two focus group interviews were conducted, one with the students and the other with their practice educators. The aim of the focus groups was to explore their experiences using the ACIS in practice. Given the small

number of participants, it was considered that one interview with each group was sufficient to establish a relatively safe environment, and that sensitive issues among the participants could be invited and explored (Plummer-D'Amato 2008a). Similarly, it was considered that the participants in both groups had a good chance of expressing their views and opinions about their experience due to the homogeneity of prior experience in the groups (Plummer-D'Amato 2008a, 2008b).

The student focus group was conducted by two of the authors (CC and TB), lasted one hour and was recorded digitally. It started with a brief review of the information about the study, which was given to the students before the focus group took place. Questions concerning confidentiality were answered. Guidelines for focus groups were followed (Polit and Beck 2004, Plummer-D'Amato 2008b). The topic guide for the student focus group is shown in Appendix 1.

Another of the authors (KG) conducted the focus group with the participating practice educators. At the time of the interview, only three of the initial group of five practice educators were available to participate in the focus group, which also lasted one hour and was recorded digitally. The topic guide for the educator focus group is shown in Appendix 2.

Data analysis

Both focus groups were transcribed verbatim from the digital recordings by author CC for the students and by author IM for the practice educators. The whole research group read the transcripts in their entirety and, following a group discussion, the texts were condensed in preparation for analysis. Authors CC and BE collaborated on the thematic analysis of the student focus group and authors IM and KG on that of the practice educator focus group. Each author analysed the text independently before meeting his or her partner to reach a consensus on integrating the analyses for the two groups. These preliminary analyses aimed at identifying central themes and relating these to each other (Giorgi and Giorgi 2003, Kvale and Brinkmann 2009). Following this, the whole research group met and the initial thematic structure from both focus groups was modified to create an overall common structure for further analysis. Common themes emerging from both of the two focus groups were emphasised in the final thematic structure.

Draft analyses were discussed by the research group on four occasions, and modifications were made by the collaborating pairs in line with the feedback from the group. Thus, a certain degree of peer review was applied to the analysis to reduce the risk of researcher bias in the interpretations of the data (Polit and Beck 2004, Plummer-D'Amato 2008a). An audit trail was developed and maintained throughout the study to document the choices made in the analytical process.

Ethical considerations

The Norwegian Regional Ethics Committee for Medical and Healthcare Research was consulted and confirmed that formal ethical approval was not required for the study. However, ethical principles were followed and informed consent to participate was obtained from each of the participants. Names were changed to ensure participants' anonymity.

Findings

Participants

Occupational therapy practice educators

The three participating practice educators were aged between 25 and 37 years, with a mean age of 31 years. They were two women and one man, and their experience of psychosocial practice ranged from 1 to 12 years. All had some prior theoretical knowledge of MOHO, but they had varied experience with using the ACIS in practice. One practice educator had never used it, whereas the other two practice educators had gained some experience with the draft translation from their own occupational therapy education. None had used the ACIS on a regular basis in their practice.

Students

Six occupational therapy students participated. Two students had a practice placement at a hospital ward for long-stay clients; two students had a placement in a hospital cafeteria run by clients and staff in collaboration; and the final two students had placements at two different intermediate hospital wards.

The students comprised five women and one man, aged between 20 and 24 years, with a mean age of 21.5 years. The students already had some theoretical knowledge about the MOHO and the draft ACIS translation used at Oslo University College (Ellingham and Opsahl 2003). However, they had no experience of clinical use of the terminology and no experience of mental health practice prior to this placement.

Themes

The themes, subthemes and categories from the interviews are provided in Table 1. The three themes were observing with the ACIS, scoring the ACIS and using the ACIS in practice.

Observing with the ACIS

The participants emphasised the importance of selecting activities and settings that could provide valuable information about the client's communication and interaction skills. These should be conscious decisions on the part of the occupational therapist to ensure that the activities will have the potential to illuminate certain aspects of interaction where more detailed information about the client's skills is needed. Selecting the activity and the context in which to perform it is a choice that delimits both the kind and the amount of information that can be obtained. Even though exercising in a gym studio with others makes interaction possible, neither the activity nor the setting necessarily invites or demands it, as some had experienced. A small group playing table tennis was suitable for assessing

Table 1. Themes, subthemes and categories from the interviews

Observations	Scoring	Clinical utility
Selecting activities	*Scoring procedure*	*Client-directed work*
Suitable activities	Numerical scores	Client feedback
Diverse activities		
Therapist role	*Feelings about scoring*	*Multidisciplinary work*
Participation-dependent information	Being 'good' or 'bad'	Improving teamwork
	Doing the client justice	Improving accountability

skills such as engages (starts to play), conforms (plays by the rules) and expresses (cheers when winning), but less suitable for assessing relationship skills like relates and respects. Activities emphasising social conversation were more suited to assess these skills.

When activity situations with the client were well planned and structured, much of the therapist's attention was focused on observing the client. More spontaneously occurring situations often resulted in a higher level of therapist involvement in the activity process, but with less focus on making sense of the observations during the activity. Although such differences in approach were acknowledged, they were not compared with each other in terms of quality:

> In spontaneously occurring observation situations you reflect more [on the client's skills] after the activity is finished. When the situation is planned, you may act more distanced. You don't take as much part in the conversation (Andy, student).

The students emphasised the importance of using a diversity of occupational and social settings in order to obtain a fuller picture of how clients' performance is dynamically influenced within different contexts. For instance, they often assessed the clients as having a higher level of skills when performing well-known activities and when relating to familiar people than they did when performing unfamiliar activities and when relating to strangers. However, the practice educators often experienced the possibilities for activities and settings to be somewhat limited. The main factors influencing this were the mental health status of the client, ward rules and staff availability.

Another frequently discussed issue was the therapist's role during the observation. Performing as a therapist while observing may limit the therapist's capacity for observation. The practice educators found such multiple demands difficult to handle in a clinical setting, especially considering their limited experience in using the instrument. However, there was an awareness that having an active therapist role (that is, participant observation) may elicit other types of information compared with information derived from a more distanced mode of observation. This may be valuable additional information based on a more personalised experience from direct interaction with the client. The assessor who was actively involved in the situation would sometimes notice eye contact, gestures, expressions and modes of relating, appropriate or not, that were not observed by the assessor who did not participate in the activity:

> The student and I tried to alternate the roles of observer and therapist in the situation. Sometimes I was interacting with the patients, sometimes he did. [The different roles] can be a source of perceiving the client's skills in different ways (…) What you observe depends on how active your role is (Tony, educator).

Several students mentioned that their training in using the ACIS carried over to unplanned situations and general observations of clients during the course of everyday life on the ward. The application of ACIS terminology helped them to make their observations explicit and, additionally, stimulated attentiveness towards areas that may ordinarily be missed, particularly within the realm of physicality. They were all familiar with the concept of body language, but with this terminology they could more easily express the aspect of the client's body language that they had observed:

> How the client turns his head when talking to someone, and how he positions himself (…) – this is something you usually don't pay much attention to when performing activities with clients. Now I focus more on these things (Helen, student).

Scoring the ACIS

The procedure for scoring was discussed by both therapists and students. Some found it hard to provide a definitive numerical score on the skills, and they were more comfortable when they provided an additional written remark. Such remarks could include more thorough descriptions of the activities and the social setting in which the observation took place. By doing this, they felt more confident that they had provided sufficient information to be able to justify their observation score, if needed.

All the students found it helpful to score the ACIS immediately after the observed situation. Comparing their score with the practice educator's score, or with that of other students, promoted reflection and learning. It also guided their further observation and assessment:

> [The supervisor and I] scored the ACIS separately, and then we went through it and looked at differences between our scores. We spoke about possible reasons for this, 'why have you scored this skill lower than I did', for instance. We tried to bring up more ideas about what to consider the next time (…) I learned a lot from such discussions (Lisa, student).

Feelings were evoked when scoring the skills of a client. Some of the students felt 'bad' when they assigned a low score to a client; equally, some felt 'good' when assigning a high score. The students pointed to their tendency to adjust their scores based on their earlier experiences with the client:

> If you assign a score of 3 or 2, there must be a reason for it. In the beginning, it was more like you considered everything you had done with the client and not just the situation [in which] you were actually observing (Mary, student).

A low score could give rise to a feeling of not doing justice to the client, as he or she could have left a much better impression of his or her skills in other situations. Students also wanted to ensure that their evaluations were rooted in clinical reality, and not just upon their subjective impression of the client.

Using the ACIS in practice

The therapists and students shared the perception that their use of the ACIS had been valuable in a range of areas. In client-directed work, the information obtained through ACIS could be used as a direct way of providing constructive feedback to the client. This could be both in the form of validating skills of which the client may have little awareness and by using the information to suggest treatment goals and directions:

> We can observe and validate the client, for instance [by telling the client] that he or she is good at initiating conversation, or making eye contact, or backing others up. We can bring these observations back to the client (Dina, educator).

The direct approach was recommended for clients who wanted feedback on how they communicated with and related to other people. Conversely, it was not recommended for clients who might easily develop a psychotic pattern of thinking, for example, paranoid ideas of surveillance:

> Some patients are open enough to say: 'I don't know how I communicate with others.' I sense that many want feedback, and then I may suggest: 'I have his assessment form, would you like to have a look at it with me (…) and then I can use it while observing you one time?' (…) To some patients, you can do this very directly, I think (Dina, educator).

> A rule of thumb can be that we should be invited by the client in order to give feedback, and not just present to the client what we have observed (…) That can be threatening, unwanted, and can be the beginning of a non-productive relationship (Tony, educator).

Additionally, the therapists and students agreed that the ACIS could provide concrete and useful information about the client's interaction skills to other staff, and that this could lead to the improved functioning of multidisciplinary teams. Also, the therapists proposed that structured instruments, like the ACIS, can make occupational therapists more professionally accountable and valued in multiprofessional settings. The instrument should be used when documenting assessment and treatment progression in the client's health record:

> [It should be used] in multi-disciplinary settings and when writing clinical reports, to make the information specific. Just saying that 'the patient communicates well' – what is it that he does that serves his communication well? (Dina, educator).

All of the above was supported by the use of ACIS terminology, which allowed students and therapists to name and frame their observations and evaluations of communicative performance.

Discussion

Finding and using suitable activities and settings to perform the observations was highlighted in this study, supporting its emphasis in the ACIS manual (Forsyth et al 1998), and is considered a core occupational therapy skill (Kielhofner 2009). Both occupational therapy practice educators and students discussed suitable activities in which to observe the client, and the demands for communication and interaction skills in each of these activities. Planning the activities and settings should be given considerable thought to ensure that the observation will provide the necessary information to obtain a comprehensive picture of the client's interaction skills. However, the client's mental condition, as well as the scarce availability of staff and other resources, may constrain the range of activities and settings that otherwise would be considered more appropriate. In such cases, generalisations on the basis of less than optimal observations should not be made.

In cases where a student and an educator scored the client separately based on the same observation, their discussion afterwards sometimes revealed differences in scores that might be due to the assessor's level of participation in the situation. Thus, occupational therapists, especially novice assessors, should observe in situations where they are able to participate in the activities, with varying levels of personal involvement. A case can be made for participatory observation being a better method to observe certain aspects of non-verbal communication or physicality. However, participation may interfere with the assessor's capacity for observation. Assessors should be aware that parts of their observations and scores may be influenced by their own level of engagement in the situation. This is in line with MOHO theory (Kielhofner 2008), which posits a dialectical relationship between the client and the environment, in this case the social environment, in which the therapist plays a part.

The students had some concerns about expressing the clients' skills with numerical scores. The use of standardised instruments with a rigorous scoring procedure may not be as common in Norway as in other countries, such as the United States, and this may explain a certain resistance among the participants towards the numerical scoring of skills.

Providing justification for each item rating was important, particularly for the students. This need for justification was expressed in several ways: by emphasising the need for further observations in other types of activities and settings, by adding written comments illustrating the context for the observation, and by seeking the advice and opinion of both the educator and other students. All of these measures are good examples of how the therapist can improve the quality of the assessments.

The focus group with the students revealed their discomfort and feelings of 'being bad' when they assigned a low score to a client's skill. Many felt that their score did not do the client justice, as they had the impression that

the client had performed much better in other settings. These experiences should not be disregarded. The ACIS manual is clear that it purports to assess the client's skills in a particular setting and activity, and makes no statement about whether skill levels can be generalised to other situations (Forsyth et al 1998). Nevertheless, the assessor who already has a generalised picture of the client may feel that the snapshot of skills provided by the ACIS is incomplete and unjust. The ACIS requires the occupational therapist to select a rating based on direct observation. However, the therapist should be aware of the limitations in generalising from one observation and seek to verify or contrast the observations with other clinical information, as suggested by these participants. The ability to balance specific observations from assessments like the ACIS with other clinical information is likely to increase with experience.

The participants found the ACIS useful in clinical work with individual clients and in multidisciplinary teamwork. The instrument and the observation procedure can be easily used with clients, who request feedback directly from therapists. Client-centredness and a focus on collaboration with clients are essential aspects of occupational therapy today (Kielhofner 2008, College of Occupational Therapists 2010), and are emphasised in the ACIS manual describing the assessment procedure (Forsyth et al 1998). However, this study indicates that client-centredness also includes respecting the amount, the content and the timing of the information given to the client. Examples include clients who are in crisis or who may not feel comfortable being observed. The problems with direct feedback to such clients resemble earlier experiences from implementing the ACIS in a Danish mental health setting (Nielsen and Andersen 2006). The decision of how to approach the ACIS with a client must be based on the clinical judgement of the occupational therapist.

In multiprofessional settings, structured assessments like the ACIS can provide specific and relevant information about clients' skills that can be used by other clinical staff, and which can support the whole team to make the best clinical decisions.

The findings also suggested that using the ACIS might improve the value and status of occupational therapy in multiprofessional settings because it made occupational therapists more accountable when reporting their evaluations of clients. As occupational therapy is a small profession in Norwegian health care, possessing qualities like accountability and thoroughness is important for its reputation. The implementation of structured, reliable and occupation-based assessments, like the ACIS, can be important for other professional groups' view of the contribution of occupational therapy in mental health care, and to support occupationally focused decision making and practice (Harries and Gilhooly 2011).

Study limitations

The results from interview studies rely on the sufficient and appropriate sampling of participants. In this study, a convenience sample of three occupational therapy practice educators and six students was used, and both the small number of participants and the sampling procedure may limit the quality of the information. However, the participants had relevant and informative, although novice, experiences with using the ACIS. Future studies may refine the sampling procedure to collect data from a larger and more representative group of participants.

The study is also limited by the lack of information concerning the participants' knowledge about the ACIS and its use. Although all participants attended the introductory seminar, it is not known whether, or to what extent, they adhered to the suggestions and consulted the manual during the process. The experiences from using the ACIS are related not only to the properties of the instrument, but also to the participants themselves. Being new to the clinical field, to the instrument and to the assessment procedure may well be a relevant context for making sense of the participants' experiences.

The analysis in interview studies is a time-consuming process, where each step has the potential to have an impact upon the validity of the findings. Transforming oral speech to written text is complex, especially when the data come from focus groups. Although the content of the focus groups was captured accurately, it may have been influenced by the focus group format and the topic guide. For the students, in particular, this may have led to discussion centred on achieving consensus, despite efforts to invite differing experience into the discussion.

In translating the focus group data from Norwegian into English, some information may have been lost or, to some degree, distorted. However, the participating practice educators read the entire manuscript prior to submission and verified the findings as presented in this paper.

Conclusion

The experiences of occupational therapists and students were explored using a draft translation of the ACIS in mental health settings in Oslo, Norway. The findings show that the ACIS has the potential to make a positive contribution both to the individual client and to the larger multidisciplinary team. Using the ACIS in clinical practice will challenge occupational therapists to select appropriate activities and settings that are both clinically sound for the individual client and have the potential of eliciting information about the client's communication and interaction skills. Occupational therapists with little experience of the assessment should consider their level of engagement during the observation, because this may have an impact upon the client's performance in the situation. They should also be aware that scoring the client's skills might elicit feelings of being 'good' or 'bad' when assigning a high or low score, respectively.

The findings of this study indicate that using the ACIS can contribute to strengthening Norwegian occupational

therapists' clinical practice by giving a structure to observation and documentation in an area where valid assessment tools are scarce. However, more comprehensive training than was provided in this study should be given to participants in future studies. In view of this study, the research group will begin work with translating and validating the ACIS as an instrument for clinical practice and a tool for research in Norway.

Conflict of interest: None declared.

Key findings

- ACIS is experienced as a useful assessment tool for mental health practice.
- ACIS strengthens the naming and framing of observed interaction and communication.
- Selection of activities, therapist's roles and therapist's personal feelings may influence the ACIS assessment process in mental health.

What the study has added

The study has added knowledge of how ACIS is experienced as a clinical tool in mental health practice among Norwegian occupational therapists and occupational therapy students. It indicates that formal translation and validation of a Norwegian version of the instrument would be appropriate.

References

College of Occupational Therapists (2010) *Code of Ethics and Professional Conduct.* London: COT.

Ellingham B, Opsahl K (2003) *Virksomhetsbasert analysesystem for ergoterapi (EVA) (Occupation-based activity analysis system for occupational therapy) (in Norwegian).* Available at: *http://www.hf.hio.no/ergo/eva* Accessed 01.09.09.

Forsyth K, Salamy M, Simon S, Kielhofner G (1998) *A user's guide to the Assessment of Communication and Interaction Skills (ACIS), Version 4.* Chicago: University of Illinois.

Forsyth K, Lai JS, Kielhofner G (1999) The Assessment of Communication and Interaction Skills (ACIS): measurement properties. *British Journal of Occupational Therapy, 62(2),* 69-74.

Giorgi A, Giorgi B (2003) The descriptive phenomenological psychological method. In: P Camic, J Rhodes, L Yardley, eds. *Qualitative research in psychology: expanding perspectives in methodology and design.* Washington, DC: American Psychological Association Press, 275-97.

Haglund L, Thorell LH (2004) Clinical perspective on the Swedish version of the Assessment of Communication and Interaction Skills: stability of assessments. *Scandinavian Journal of Caring Sciences, 18(4),* 417-23.

Harries P, Gilhooly K (2011) Training novices to make expert, occupationally focused, community mental health referral decisions. *British Journal of Occupational Therapy, 74(2),* 58-65.

Ikebuchi E (2007) Social skills and social and non social cognitive functioning in schizophrenia. *Journal of Mental Health, 16(5),* 581-94.

Kielhofner G (2008) *A Model of Human Occupation: theory and application.* 4th ed. Baltimore, MD: Lippincott Williams and Wilkins.

Kielhofner G (2009) *Conceptual foundations of occupational therapy practice.* 4th ed. Philadelphia: FA Davis.

Kjellberg A, Haglund L, Forsyth K, Kielhofner G (2003) The measurement properties of the Swedish version of the Assessment of Communication and Interaction Skills. *Scandinavian Journal of Caring Sciences, 17(3),* 271-77.

Kvale S, Brinkmann S (2009) *Interviews. Learning the craft of qualitative research interviewing.* 2nd ed. Thousand Oaks, CA: Sage.

Lloyd C, Williams PL (2010) Occupational therapy in the modern adult acute mental health setting: a review of current practice. *International Journal of Therapy and Rehabilitation, 17(9),* 483-89.

Nielsen KK, Andersen J (2006) ACIS's anvendelighed – i forhold til mennesker med sindslidelser (ACIS' utility in relation to people with mental illness) (in Danish). *Ergoterapeuten, 5,* 21-23.

Plummer-D'Amato P (2008a) Focus group methodology, part 2: Considerations for analysis. *International Journal of Therapy and Rehabilitation, 15(3),* 123-29.

Plummer-D'Amato P (2008b) Focus group methodology, part 1: Considerations for design. *International Journal of Therapy and Rehabilitation, 15(2),* 69-73.

Polit DF, Beck CT (2004) *Nursing research. Principles and methods.* 7th ed. Philadelphia: Lippincott Williams and Wilkins.

Wimpenny K, Forsyth K, Jones C, Matheson L, Colley J (2010) Implementing the Model of Human Occupation across a mental health occupational therapy service: communities of practice and a participatory change process. *British Journal of Occupational Therapy, 73(11),* 507-16.

Appendix 1. Topic guide for the interview with the students

1. What has it been like to take part in this project?
2. What experiences did you have in performing the ACIS observations?
3. What experiences did you have in scoring the ACIS from the observations?
4. What experiences did you have in discussing the ACIS observations with your supervisor, and how did you value the supervision related to these situations?
5. How did you experience the applicability of the ACIS in practice situations?

Appendix 2. Topic guide for the interview with the practice educators

1. How have you experienced your participation in the ACIS project?
2. How did you experience the preparations for the ACIS project, including the didactic seminar, and the communication between the research group members?
3. In what ways did you perform the ACIS observations?
4. How have the ways by which you have performed the observations worked – for you, and for the students?
5. Do you have suggestions for improvements with regard to the clinical use of ACIS observations?
6. In what ways did you and the students discuss the ACIS observations that the students performed? How did this work out?
7. In what ways has the ACIS functioned as a means of assessment?