TITLE: Improving the therapeutic relationship in inpatient psychiatric care: assessment of the therapeutic alliance and empathy after implementing evidence-based practices resulting from participatory action research

ABSTRACT:

PURPOSE: To examine how evidence about the therapeutic alliance gleaned from participatory action project affected the level of this alliance and the degree of empathy of psychiatric nurses.

DESIGN AND METHODS: Quasi-experimental study in two psychiatric units. In one group, evidence-based practices that affected the therapeutic alliance were implemented; in the comparison group, there was no such intervention.

FINDINGS: The nurses from the intervention group improved their degree of empathy and factors such as agreement on objectives and tasks with the patient.

PRACTICE IMPLICATIONS: The results confirm the possibility of measuring and improving the therapeutic relationship in psychiatric care.

KEY WORDS: Evidence-based practice, mental health, nurse-patient relations, psychiatric nursing, participatory action research

INTRODUCTION

The therapeutic relationship (TR) is one of the most important tools available to nurses, especially in mental health nursing (Scanlon, 2006). The concept of the TR emerged in parallel to the professionalization of nursing care (O'Brien, 2001) and is considered the cornerstone of psychiatric and mental health nursing (Scanlon, 2006). The TR is also called the helping relationship, the nurse-patient relationship, the trusting relationship, and the therapeutic alliance (Moreno-Poyato et al., 2016). Nevertheless, the central focus of all these concepts is the helping/working relationship that is

established between nurse and patient. An appropriate TR increases the efficacy of nursing interventions in the acute mental health setting (McAndrew et al., 2014).

The literature discusses various aspects of the meaning of TR for nurses and patients in the clinical practice of psychiatric units. Psychiatric nurses are aware of the concept of TR and its importance (Clark, 2012; Cleary et al., 2012; Dziopa & Ahern, 2009; Hawamdeh & Fakhry, 2014). However, they are also aware that specific skills are required to develop and maintain a TR with patients (Dziopa & Ahern, 2009). Factors such as consistency, empathy, the ability to listen, making a positive first impression, a safe and comfortable environment, and teamwork are the basic pillars on which the development of a TR is based (Cleary et al., 2012).

For their part, patients perceive that attitudes, values and a trusting relationship are more important in the TR than technical skills (Schroeder, 2013). Service users expect to receive individual attention as part of their treatment plan (Hopkins et al., 2009). A feeling of control and self-determination is highly important, and this is provided by interpersonal relationships (McCloughen et al., 2011). So much so, that what patients want most are empathetic nurses: i.e., those able to identify what the patient expects or needs from the nurse at any given moment (Schroeder, 2013). Patients value nurses who are patient and imaginative and have a sense of humour (Cleary et al., 2012), who listen and are empathetic (Moreno-Poyato et al., 2016).

So, for both nurses and patients the TR is at the core of nursing care in psychiatric units (Cleary et al., 2012; Hopkins et al., 2009). However, nurses and patients have different expectations about the TR in clinical practice and different ideas about its significance. In this regard, although nurses consider that features such as empathy and listening to patients are fundamental to the TR, patients often feel that they have very

few opportunities to work together with their nurses and that their opinions are not taken into account. On occasion they perceive nurses as authoritarian, or condescending and unsure (Hopkins et al., 2009; Schroeder, 2013). This makes it necessary to assess the distance between the two standpoints and try to bridge the gap so that clinical practice can be improved in psychiatric units (Moreno-Poyato et al., 2016).

Because of the conceptual complexity of TR, there are hardly any validated instruments for evaluating it. One of the most studied and measured constructs in the framework of TR is the therapeutic alliance. According to Horvath and Greenberg (1989), the therapeutic alliance is the relational attribute that is a feature of all relations that attempt to bring about a change. This alliance is constructed through the connection between the professional and the patient, who reach an agreement on objectives and on activities they must do together. It is, therefore, an extremely important factor in the overall nurse-patient relationship. On the basis of the theory on the therapeutic alliance, a measuring instrument was constructed: the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). This tool has been studied primarily in the community health setting, mostly among professional psychologists (Andrade-González & Fernández-Liria, 2015; Urbanoski et al., 2012). However, it has hardly been used in nursing and even less in psychiatric units. Cookson et al. (2012) used it to relate the interpersonal styles of nursing teams with psychiatric symptoms and the coercion perceived by patients in psychiatric units. The results showed that an authoritarian style by the team predicted a bad therapeutic alliance and an increase in the possibility of health professionals being the object of aggression. They only administered the scale to patients and the version administered was adapted to the measure of therapeutic alliance between the patient and the unit's team.

Empathy, regarded as the ability to understand the patient, is a critical component of the therapeutic nurse-client relationship in psychiatric nursing (Moreno-Poyato et al., 2016). In his conceptualization of empathy, Davis (1983) distinguished between cognitive empathy and affective empathy. For him, cognitive empathy is the attempt to understand the perspective of other people and the ability to adopt various roles that are useful to the situation. Affective empathy, on the other hand, is a tendency to react emotionally to the experiences observed in others. It is clear, then, that the most important sort of empathy for a good TR is of the cognitive type, while a high level of affective empathy would limit the therapeutic relationship of professionals with their patients (Davis, 1983). We have been unable to find any literature that assesses the change in empathy after interventions in nurses working in psychiatric units. Nevertheless, it has been reported that it is very difficult to increase the degree of empathy in participants in other contexts (Webster, 2010). Even so, the study of empathy in parallel to other constructs could clarify relationships, and reveal possible channels for change and improvement.

Finally, in terms of the improvement of care, for years now evidence-based practice has been a leading international trend. However, this empirical approach is not easy to apply in the complex clinical reality of health care services (Stevens, 2013). One of the methods used to incorporate evidence-based practice is participatory action research (PAR) (Abad-Corpa et al., 2012). The goal of PAR is to resolve or modify specific problems in communities, in this case in acute care nursing teams. PAR is a dynamic method consisting of an open, holistic and egalitarian process among researchers and participants (Delgado-Hito, 2012); the action needs to be filtered through experience and reflection before it can improve or change practices. In PAR, the generation of knowledge is viewed as a collaborative process, in which the skills and experiences of

each participant are essential to the outcome of the project. This method has had positive effects on nurses' knowledge, their professional performance, the structural context and patient outcomes (Munten et al., 2010).

The aim of this study was to evaluate the effectiveness of implementing evidence-based practices in the clinical psychiatric setting in terms of their impact on the therapeutic alliance and empathy perceived by nurses through PAR.

METHOD

Design

Quasi-experimental design with pre-test and post-test control group

Study domain

The study was carried out with nurses from acute psychiatric units in two hospitals in Barcelona. They were all on the permanent staff and had to have a contract of at least 21 hours a week. The nurses who were in the comparison group belonged to a unit that cared for a total of 39 acute psychiatric patients. The nurse-patient ratio was 1:11. On the other hand, the nurses in the comparison group belonged to a unit with 44 acute psychiatric patients. The nurse/patient ratio in this comparison site was 1:12. The two units were in different hospitals but depended on the same institution and shared protocols, clinical guidelines and regulations. The two hospitals were in urban areas, specifically in Barcelona and its metropolitan area, the patient profile and their care needs are similar because the respective catchment areas contain districts of similar socioeconomic and cultural levels.

Study period

The pre-test data of the participants were collected between September and December in 2014. The intervention (implementation of evidence-based practices through PAR) lasted for 10 months in 2015. The length of the intervention was due to the method used and the need for a two-stage process so that the changes could be suitably implemented. The post-test data of the participants were collected between October and December 2015.

Participants and recruitment

The population under study were the nurses from the psychiatric units of the two hospitals selected. Because of the type of intervention and the method of implementing the evidence-based practices in the study design largely through focus groups (PAR), it was decided that each group should consist of nine participants (Jayasekara, 2012). The participants in each group were intentionally selected in such a way that they represented as many of the different nurse profiles in the unit as possible (Patton, 2002). All the nurses from the two units were informed of the objectives and the methodology of the study by the nursing director and email. All the nurses who were interested in taking part were given an informal interview during which they were provided with more information about the study. Those who most closely matched the profiles established for the sampling process were selected (Table 1).

Data collection

The following variables and measuring instruments were included.

Variables:

1. Sociodemographic and occupational variables

2. Dependent variables

- Level of therapeutic alliance, from the nurse´s perspective, evaluated using the WAI-S scale, therapist version (Horvath & Greenberg, 1989)

- Degree of empathy, from the nurse's perspective, evaluated using the IRI scale (Davis, 1983).

3. Independent variables:

- Implementation of evidence-based practices using PAR

Instruments:

1. The Working Alliance Inventory (WAI short). This inventory measures the therapeutic alliance and, therefore, the nurse-patient relationship (Horvath & Greenberg 1989). The short version of this scale contains 12 items, and each item is evaluated by the health professional using a scale ranging from 1 (never) to 7 (always). This questionnaire is made up of three subscales: (i) bond: the bond between patient and nurse, which includes aspects such as empathy, mutual trust and acceptance: (ii) goals: the agreement between patient and nurse in terms of the objectives (that is to say, mutual acceptance about what the intervention aims to achieve), and (iii) tasks or activities: the agreement between patient and nurse about the tasks or activities that have to be carried out. The higher the score, the greater the therapeutic alliance. The Spanish version of the WAI-S has good reliability and validity, with a Cronbach alpha of .93 (Andrade-González & Fernández-Liria, 2015).

2. The Interpersonal Reactivity Index (IRI). This inventory measures the nurses' own perception of their emphatic tendency with patients (Davis, 1983).
The instrument consists of 28 items with a Likert scale (1 = *does not describe me well* and 5 = *describes me very well*) and is made up of 4 subscales: (i) perspective taking:

measures the spontaneous attempts by nurses to put themselves in somebody else's shoes (adopt the point of view of others); (ii) fantasy: measures the tendency of nurses to feel useful in the relationship with the other and assesses their imaginative capacity, (iii) emphatic concern: measures the response of nurses in terms of sympathy, concern and affection for others, particularly when they are in trouble; and (iv) personal distress: evaluates the feelings of anxiety and distress that nurses experience when they observe others having negative experiences.

The higher the score, the greater the emphatic tendency in the therapeutic relationship. This instrument has been validated in Spanish (Pérez-Albéniz, Paúl, Etxeberría, Montes & Torres, 2003) and the Cronbach alpha values for the Spanish version vary between .63 and .71 among the four factors.

The intervention

The intervention consisted of implementing scientific evidence-based practices through PAR (Abad-Corpa et al., 2012). The process that was carried out during this intervention is described below and is presented in schematic form in Figure 1. After an initial self-observation of clinical practice by the nurses participating in the intervention group, they were provided with some scientific evidence: the nursing best practice guideline "Establishing Therapeutic Relationships" published by the Registered Nurses Association of Ontario (RNAO, 2002). The nurses were asked to compare their own practice with this text. They designed strategies to improve the TR with their patients on the basis of the evidence provided and their health-care context. More specifically, they designed, implemented and assessed three strategies for improving the TR (see figure 1). It is important to note that the three strategies decided by the nurses should be

standard in some psychiatric wards, but they were not in the wards that we studied at that moment:

1. *Individual patient care*: This strategy consisted of dedicating a part of every working day to individual interactions with patients. The main aim of the interaction was to understand the patients' situations and try to help them by carrying out the three phases described in the text they had been presented with. As a result, the group agreed that the aim was to understand the caring requirements of the patients, to agree on objectives and to make joint decisions about the interventions to be carried out. The next interaction was scheduled to assess the work that had been done.
2. *Reflective groups*. This strategy consisted of setting up group sessions for the participants in which they could put their concerns and worries about clinical practice into words. In these forums they could share and discuss all sorts of cases and situations in terms of the TR. The purpose was for the members of the group to vent their emotions through constructive criticism among professionals**.** During the study period, two group sessions were scheduled.
3. *Study of other evidence (two scientific texts)*. As the initial evidence suggested, the group decided to gain more in-depth knowledge by reading two scientific articles they selected themselves (Scanlon, 2006; McAndrew et al., 2014). The nurses decided that the principal investigator should propose five articles from indexed peer review journals. Then they read the abstract of each article, and voted to decide on which two documents were the most appropriate.

The comparison group took no part in any intervention between nurses and patients that was not part of their unit's daily practice.

Analysis of data

The data analysis focused on the numerical differences that were obtained on the WAI-S and IRI scales, before and after the evidence was incorporated into practice through PAR. The groups were compared with Wilcoxon's test, which accurately calculated the p value using permutations. Also, to measure the strength and direction of association between variables under study in the intervention group, Spearman's correlation coefficient was calculated. The results were interpreted with a level of significance of $p<0.05$. The process of analysis was carried out using the computer program IBM SPSS Statistics 21 and the statistical package R (version 3.3.1).

Ethical considerations

The Project was approved by the Institution's Ethics Committee of Clinical Research. All the participants were volunteers who had given their informed consent and who could withdraw from the study whenever they liked. The confidentiality of the personal and family data was guaranteed

RESULTS

Initially, a total of 26 participants were part of the research, enough to allow for some drop out. During the study 4 participants did actually withdraw from the intervention group: two for personal reasons, 1 for lack of professional motivation and 1 for the workload required by the study. In the comparison group, 2 participants did not fill in the questionnaires when the data was collected. Therefore, 20 participants completed the study, of whom 9 were in the intervention group and 11 in the comparison group. Given the size of the sample and to make the interpretation of the data more straightforward, the mean score and the 25th and 75th percentiles are presented for all the quantitative variables.

Table 2 shows the main sociodemographic and employment characteristics of the participants, and also provides the scores from the WAI-S and IRI before the intervention. The sample mainly consisted of women and all three work shifts were represented. Most of the nurses who participated were not specialists in mental health and had worked in the field for less than 10 years. As can be seen in table 2, the two groups presented similar characteristics before the intervention.

Table 3 shows the differences in the scores between the two groups after the intervention. It should be pointed out that improvements in the total score for the level of therapeutic alliance were statistically significant with a mean difference of more than 7 points between the two groups (p=0.010). Comparing the differences between groups, improvements were also significant in goals factors (p=0.025) and tasks (p=0.004). Likewise, the intervention group significantly improved their degree of empathy both for the whole scale, with a mean difference of more than 6 points with respect to the comparison group (p=0.026), and for the factor Fantasy, with a difference in mean scores of more than 5 points (p=0.002).

DISCUSSION

The aim of this study was to evaluate the effectiveness of using evidence-based practices in the clinical psychiatric setting in terms of the impact on the improvement of the therapeutic alliance and the empathy perceived by nurses through PAR. Although the changes may be due to the fact that the nurses themselves took part in the study, the results indicate that improvements were brought about in highly specific factors that are closely related to the intervention, the type of method used and the strategies that emerged from it. In this respect, the level of the therapeutic alliance increased in nurses, particularly in terms of agreeing on objectives and tasks with patients. The results with

respect to the total degree of empathy also revealed statistically significant differences. It should be noted that nurses significantly improved their sense of usefulness in the context of patient care. This aspect was measured using the factor Fantasy because of the importance of self-awareness in establishing the TR.

It should be pointed out that the level of the therapeutic alliance was already high in the pretest results of both groups (Andrade-González & Fernández-Liria, 2015). This may be due to the presence of nurses specializing in mental care and the high degree of experience of the participants. Whatever the case may be, the aspect that improved significantly in the intervention group after the intervention was the joint determination of objectives and tasks with the patients. This finding is in accordance with the evidence-based practice that was initially implemented, which advocated the importance of establishing objectives with patients and going through the stages of the TR with them (Registered Nurses Association of Ontario, 2002). It is habitual clinical practice for patients not to be involved in the care schedule with nurses (Biering, 2010; Stegink et al., 2015; Voogt, Nugter, Goossens & van Achterberg, 2016). The results of our study show that, after the intervention, the nurses had improved their perception about the need to include patients in formulating the objectives of their care and the joint decision about the interventions that needed to be made to improve their health. It is clear that involving patients with mental health problems in their own care schedule empowers them. By building bridges of this sort, inpatient psychiatric care becomes more like the person-centered approaches characteristic of the WHO's health policies (2007).

It is necessary to emphasize that the high scores obtained by the nurses before the intervention in terms of the bond confirm that they were able to establish a close bond with patients before the evidence-based practice had been implemented. In fact, the literature shows nurses have always given vital importance to confidence in the TR

(McCloughen et al., 2011; Moreno-Poyato et al., 2016). For this reason, the nurses who took part in the study did not significantly improve their connection with their patients, because at the start of the study it was already high.

As far as changes in empathy were concerned, unlike other studies, this study shows that the nurses substantially improved their degree of fantasy (Avasarala, Whitehouse & Drake, 2015), which reflects a greater sense of usefulness in patient care (Davis, 1983). This is particularly important because it shows that such an important factor as a nurse's self-awareness when establishing therapeutic relations with their patients can be changed (Dziopa & Ahern, 2009; Van den Heever et al., 2013). Also, the fact that nurses feel useful increases their self-confidence, which, in turn, improves the quality of the care they provide (Biering, 2010; Hopkins et al., 2009; McCloughen et al., 2011; Schröder, Ahlström, & Larsson, 2006). In terms of perspective taking, nurses already had high levels before the intervention (Davis, 1983), which shows that they were able to put themselves in the patients' shoes when they established the TR. In fact, nurses have always stressed that this is an essential feature of the TR (Dziopa & Ahern, 2009; Van den Heever et al., 2013; Van Sant & Patterson, 2013). Both the factor "perspective taking" and the factor "fantasy" belong to the cognitive part of empathy and, for this reason, they are more sensitive to change. However, those factors related to affective empathy such as "emphatic concern" and "personal distress" underwent no modifications because from a theoretical point of view they are less susceptible to change (Davis, 1983). This is extremely important and confirms the need to create more specific strategies aimed at improving affective empathy.

LIMITATIONS AND STRENGTHS OF THIS STUDY

The findings need to be considered in the context of the following limitations and strengths. First, the sample was small. For this reason, the comparison of both study groups was not adjusted for any of the variables with different distributions in the intervention and comparison groups. However, it took place in two hospitals and two different units were analyzed. Of course, including more psychiatric units from other centers would enable the sample to be extended so that the results could be generalized to contexts other than those that are similar to the ones studied. Secondly, there are also some sampling limitations. The participants in the study were not randomly selected; they were, in essence, a purposive sample. However, given the qualitative nature of the method for the intervention and that the aim was to be able to evaluate the changes and improve the initial TR in this context, maximum variance sampling gave the greatest guarantee of using the scientific evidence appropriately in the intervention unit. Although there was a comparison group, the assignment to this group was not randomized. Randomization was unfeasible because the intervention could affect the overall running of the unit. One of the strengths of the intervention, however, was that the unit where the intervention was carried out and the control unit were at some distance from each other and employed different nurses. This prevented possible information biases.

IMPLICATIONS FOR NURSING PRACTICE

The findings of the present study have important implications for practice, education, and research. In the first place, the study is innovative in that it attempts to quantify the improvement in the therapeutic relationship after an intervention. Without doubt, the positive results of this study could be the starting point for further, more in-depth work on this issue, which is of such importance and so necessary for mental-health nursing. There is a clear need for further research. The sample needs to be extended by including

more hospitals and more participants. Besides, patients are an important component of the TR because they are the recipients of nursing practice. Future research into patients' perspectives is also crucial. Also, future research should make a qualitative evaluation of the impact of the changes in nursing practice in the medium term. Likewise, studies need to be made on whether staff's self-reported changes lead to changes in practice and ultimately changes in outcome.

Whatever the case may be, the study has improved the therapeutic relationship between nurses and patients in the psychiatric unit where the intervention was carried out and has had a clear positive effect on the clinical practice of the nurses. It has also incorporated aspects of evidence-based practice into mental-health nursing. Likewise, the study reveals the importance of using participatory methods for integrating knowledge and learning in psychiatric nurses. In this regard, PAR should be promoted by unit managers as a common method for integrating empirical knowledge into practice, and strengthening the autonomy and participation of nurses.

CONCLUSIONS

Our study has shown that by incorporating evidence based practices into their work, nurses were able to increase their level of empathy and improve factors that contribute to establishing a therapeutic alliance with patients. Bearing in mind the importance of the TR in mental-health nursing, the main conclusions of the study are that clinical practice itself can be used to improve the TR and that this improvement can be quantified. We can also confirm that participatory methods such as PAR can be effectively used to improve the TR, and implement and develop evidence-based practice.

REFERENCES

Abad-Corpa, E., Cabrero-García, J., Delgado-Hito, P., Carrillo-Alcaraz, A., Meseguer-Liza, C., & Martínez-Corbalán, J. T. (2012). Effectiveness of participatory-action-research to put in practice evidence at a nursing onco-hematology unit. *Revista Latino-Americana de Enfermagem*, *20*(1), 59–67. http://doi.org/10.1590/S0104-11692012000100009

Andrade-González, N., & Fernández-Liria, A. (2015). Spanish Adaptation of the Working Alliance Inventory-Short (WAI-S). *Current Psychology*, *35*(1), 169–177. http://doi.org/10.1007/s12144-015-9365-3

Avasarala, S. K., Whitehouse, S., & Drake, S. M. (2015). Internship and Empathy: Variations Across Time and Specialties. *Southern Medical Journal*, *108*(10), 591–595. http://doi.org/10.14423/SMJ.0000000000000347

Biering, P. (2010). Child and adolescent experience of and satisfaction with psychiatric care: a critical review of the research literature. *Journal of Psychiatric and Mental Health Nursing*, *17*(1), 65–72. http://doi.org/10.1111/j.1365-2850.2009.01505.x

Clark, L. (2012). The therapeutic relationship and Mental Health Nursing: it is time to articulate what we do! *Journal of Psychiatric and Mental Health Nursing*, *19*(9), 839–43. http://doi.org/10.1111/j.1365-2850.2012.01944.x

Cleary, M., Horsfall, J., O'Hara-Aarons, M., Jackson, D., & Hunt, G. E. (2012). Mental health nurses' perceptions of good work in an acute setting. *International Journal of Mental Health Nursing*, *21*(5), 471–479. http://doi.org/10.1111/j.1447-0349.2011.00810.x

Cookson, A., Daffern, M., & Foley, F. (2012). Relationship between aggression, interpersonal style, and therapeutic alliance during short-term psychiatric

hospitalization. *International Journal of Mental Health Nursing*, *21*(1), 20–9. http://doi.org/10.1111/j.1447-0349.2011.00764.x

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimension approach. *Journal of Personality and Social Psychology*, *44*(1), 113–126.

Delgado-Hito P. (2012). Métodos de la investigación cualitativa. In M.T. Icart Isern y A.M. Pulpón Segura (Eds), *Cómo elaborar y presentar un proyecto de investigación, una tesina y una tesis*. *(How to prepare and present a research project, a thesis and a dissertation).* Barcelona: Publicaciones y Ediciones de la Universidad de Barcelona.

Dziopa, F., & Ahern, K. (2009). Three different ways mental health nurses develop quality therapeutic relationships. *Issues in Mental Health Nursing*, *30*(1), 14–22. http://doi.org/10.1080/01612840802500691

Hawamdeh, S., & Fakhry, R. (2014). Therapeutic relationships from the psychiatric nurses' perspectives: An interpretative phenomenological study. *Perspectives in Psychiatric Care*, *50*(3), 178–185. http://doi.org/10.1111/ppc.12039

Hopkins, J. E., Loeb, S. J., & Fick, D. M. (2009). Beyond satisfaction, what service users expect of inpatient mental health care: a literature review. *Journal of Psychiatric and Mental Health Nursing*, *16*(10), 927–37. http://doi.org/10.1111/j.1365-2850.2009.01501.x

Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, *36*(2), 223–233.

Jayasekara, R. S. (2012). Focus groups in nursing research: methodological

perspectives. *Nursing Outlook*, *60*(6), 411–6. http://doi.org/10.1016/j.outlook.2012.02.001

McAndrew, S., Chambers, M., Nolan, F., Thomas, B., & Watts, P. (2014). Measuring the evidence: reviewing the literature of the measurement of therapeutic engagement in acute mental health inpatient wards. *International Journal of Mental Health Nursing*, *23*(3), 212–220. http://doi.org/10.1111/inm.12044

McCloughen, A., Gillies, D., & O'Brien, L. (2011). Collaboration between mental health consumers and nurses: Shared understandings, dissimilar experiences. *International Journal of Mental Health Nursing*, *20*(1), 47–55. http://doi.org/10.1111/j.1447-0349.2010.00708.x

Moreno-Poyato, A. R., Montesó-Curto, P., Delgado-Hito, *et al.* (2016). The Therapeutic Relationship in Inpatient Psychiatric Care: A Narrative Review of the Perspective of Nurses and Patients. *Archives of Psychiatric Nursing*, *30*(6), 782-787. http://doi.org/10.1016/j.apnu.2016.03.001

Munten, G., van den Bogaard, J., Cox, K., Garretsen, H., & Bongers, I. (2010). Implementation of evidence-based practice in nursing using action research: a review. *Worldviews on Evidence-Based Nursing*, *7*(3), 135–57. http://doi.org/10.1111/j.1741-6787.2009.00168.x

O'Brien, A. J. (2001). The therapeutic relationship: historical development and contemporary significance. *Journal of Psychiatric and Mental Health Nursing*, *8*(2), 129–137. http://doi.org/10.1046/j.1365-2850.2001.00367.x

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, California: Sage Publications.

Pérez-Albéniz A., De Paúl J., Etxeberría J., Montes M.P., & Torres E. (2003). Adaptación de Interpersonal Reactivity Index (IRI) al español. (Spanish adaptation of the Interpersonal Reactivity Index). *Psicothema 15*(2), 267–272.

Registered Nurses Association of Ontario (2002). *Establishing therapeutic relationships.* Toronto, Canada: Registered Nurses Association of Ontario.

Scanlon, A. (2006). Psychiatric nurses' perceptions of the constituents of the therapeutic relationship: a grounded theory study. *Journal of Psychiatric and Mental Health Nursing*, *13*(3), 319–29. http://doi.org/10.1111/j.1365-2850.2006.00958.x

Schroeder, R. (2013). The seriously mentally ill older adult: perceptions of the patient-provider relationship. *Perspectives in Psychiatric Care*, *49*(1), 30–40. http://doi.org/10.1111/j.1744-6163.2012.00338.x

Stegink, E. E., van der Voort, T. Y. G., van der Hooft, *et al.* (2015). The Working Alliance Between Patients With Bipolar Disorder and the Nurse: Helpful and Obstructive Elements During a Depressive Episode From the Patients' Perspective. *Archives of Psychiatric Nursing*, *29*(5), 290–296. http://doi.org/10.1016/j.apnu.2015.05.005

Stevens, K. R. (2013). The impact of evidence-based practice in nursing and the next big ideas. *Online Journal of Issues in Nursing*, *18*(2), 4. http://doi.org/10.3912/OJIN.Vol18No02Man04

Urbanoski, K. A., Kelly, J. F., Hoeppner, B. B., & Slaymaker, V. (2012). The role of therapeutic alliance in substance use disorder treatment for young adults. *Journal of Substance Abuse Treatment*, *43*(3), 344–351. http://doi.org/10.1016/j.jsat.2011.12.013

Van den Heever, A. E., Poggenpoel, M., & Myburgh, C. P. H. (2013). Nurses and care workers' perceptions of their nurse-patient therapeutic relationship in private general hospitals,Gauteng, *SouthAfrica. Health SA Gesondheid*, 18(1), Art. 27, 1–7. http://doi.org/10.4102/hsag.v18i1.727

Van Sant, J. E., & Patterson, B. J. (2013). Getting in and getting out whole: nurse-patient connections in the psychiatric setting. *Issues in Mental Health Nursing*, *34*(1), 36–45. http://doi.org/10.3109/01612840.2012.715321

Voogt, L. A., Nugter, A., Goossens, P. J. J., & van Achterberg, T. (2016). An Interview Study on "Providing Structure" as an Intervention in Psychiatric Inpatient Care: The Nursing Perspective. *Perspectives in Psychiatric Care*, *52*(3), 208–16. http://doi.org/10.1111/ppc.12119

Webster, D. (2010). Promoting empathy through a creative reflective teaching strategy: a mixed-method study. *The Journal of Nursing Education*, *49*(2), 87–94. http://doi.org/10.3928/01484834-20090918-09

World Health Organization (WHO). (2007). *People-centred health care: A policy framewok*. Geneve, Switzerland: Author.

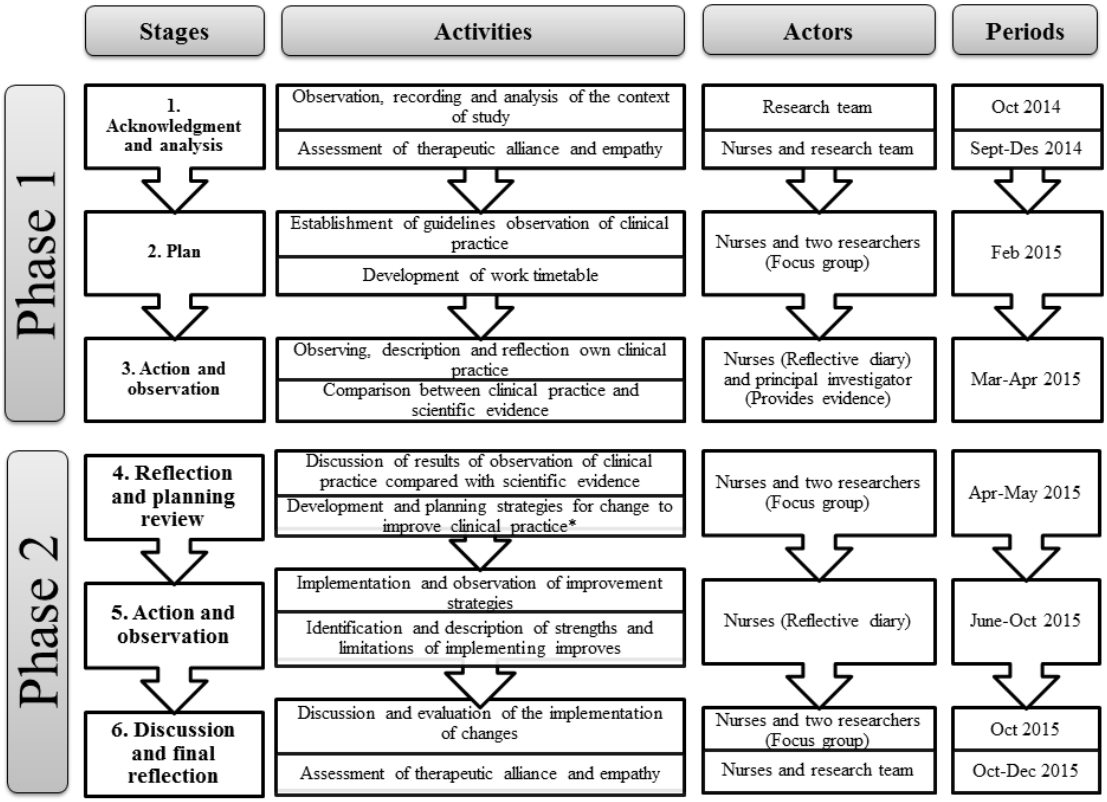

FIGURE 1 Intervention: implementation of evidence in practice through participatory action research

TABLE 1: *Profiles established for the sampling process*

Profile	Sex	Workshift	Mental health nursing specialist
1	Male	Morning	Yes
2	Female	Morning	Yes
3	Male/Female	Morning	No
4	Male	Afternoon	Yes
5	Female	Afternoon	Yes
6	Male/Female	Afternoon	No
7	Male/Female	Night	Yes
8	Male/Female	Night	Yes

TABLE 2: *Comparison of sociodemographic and occupational characteristics and scale scores of both groups at baseline*

Variable	All (n=20)		Comparison (n=11)		Intervention (n=9)	
	n	%	n	%	n	%
Sex						
Male	7	35.0	3	27.3	4	44.4
Female	13	65.0	8	72.7	5	55.6
Workshift						
Morning	9	45.0	5	45.5	4	44.4
Afternoon	8	40.0	4	36.4	4	44.4
Night	3	15.0	2	18.2	1	11.1
Mental health nursing specialist						
Yes	6	30.0	4	36.4	2	22.2
No	14	70.0	7	63.6	7	77.8
Experience of psychiatric nursing (years)						
≤ 10 years	12	60.0	6	54.5	6	66.7
> 10 years	8	40.0	5	45.5	3	33.3
	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)
Age (years)	35.0 (30.5-40.0)	36.2 (6.5)	37.0 (29.0-40.0)	35.4 (5.7)	34.0 (32.2-38.0)	37.1 (7.6)
WAI scale						
Bond	22.5 (20.0-24.7)	22.5 (3.1)	24.0 (20.0-25.0)	22.8 (1.1)	21.5 (20.2-23.5)	21.5 (0.7)
Goal	20.0 (16.0-20.7)	18.4 (3,7)	20.0 (16.0-20.0)	19.2 (1.0)	18.0 (13.2-21.0)	17.3 (1.1)
Task	19.0 (17.0-21.0)	18.6 (3.2)	19.0 (17.0-22.0)	19.3 (0.8)	19.5 (14.0-20.7)	17.6 (1.1)
Total WAI	61.0 (54.2-64.5)	59.2 (8.2)	63.0 (55.0-67.0)	61.4 (2.4)	58.5 (48.0-62.7)	56.5 (2.6)
IRI scale						
Perspective taking	27.5 (26.0-31.0)	22.5 (3.7)	28.0 (25.0-33.0)	28.5 (3.9)	28.5 (26.2-31.0)	28.2 (3.5)
Fantasy	19.0 (15.2-22.0)	19.1 (4.4)	20.0 (19.0-22.0)	20.5 (3.9)	17.0 (15.0-21.0)	17.3 (4.6)
Empathic concern	27.0 (24.5-29.0)	27.1 (3.5)	27.0 (24.0-32.0)	27.5 (3.7)	27.5 (26.2-29.0)	26.6 (3.3)
Personal distress	15.5 (13.2-16.7)	15.4 (2.8)	16.0 (13.0-17.0)	15.6 (2.2)	14.0 (14.0-17.5)	15.2 (3.4)
Total IRI	92.0 (83.2-95.7)	90.1 (8.5)	93.0 (84.0-98.0)	92.2 (92.2)	92.0 (82.7-93.5)	87.4 (7.5)

WAI-S, Working Alliance Inventory-Short; IRI, Individual Reactivity Index; P_{25-75}, Percentile 25-percentile 75; SD, Standard Deviation.

TABLE 3: *Posttest-Pretest differences in WAI-S and IRI according to study group*

Variable	Intervention (n=9)						Comparison (n=11)						*p*
	Pretest		Post-test		Difference		Pretest		Post-test		Difference		
	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	Median (P_{25-75})	Mean (SD)	*value*[1]
Bond	21.5 (20.2-23.5)	21.5 (0.7)	23.5 (20.0-24.0)	22.6 (2.6)	5.0 (-1.7-3.5)	1.1 (2.8)	24.0 (20.0-25.0)	22.8 (3.6)	23.0 (20.0-24.0)	22.0 (1.8)	-1.0 (-2.0-1.0)	-0.8 (3.2)	.247
Goal	18.0 (13.2-21.0)	17.3 (1.1)	21.5 (21.0-22.7)	21.3 (2.2)	4.0 (1.0-7.5)	4.0 (3.4)	20.0 (16.0-20.0)	19.2 (3.3)	19.0 (18.0-22.0)	19.5 (3.0)	-1.0 (-2.0-2.0)	0.3 (3.1)	.025*
Task	19.5 (14.0-20.7)	17.6 (1.1)	22.5 (21.0-23.0)	21.8 (1.3)	3.0 (2.0-5.5)	4.2 (3.3)	19.0 (17.0-22.0)	19.3 (2.9)	19.0 (18.0-21.0)	19.4 (2.7)	.0 (-2.0-2.0)	0.1 (2.9)	.004*
Total WAI-S	58.5 (48.0-62.7)	56.5 (2.6)	66.0 (66.0-68.0)	65.8 (5.1)	7.0 (3.2-15.0)	9.3 (6.9)	63.0 (55.0-67.0)	61.4 (8.1)	61.0 (57.0-65.0)	61.0 (6.8)	-1.0 (-8.0-7.0)	-0.4 (7.1)	.010*
Perspective taking	28.5 (26.2-31.0)	28.2 (3.5)	27.0 (26.0-31.7)	27.8 (2.4)	-1.0 (-2.5-1.5)	-0.3 (2.3)	28.0 (25.0-33.0)	28.5 (3.9)	27.0 (26.0-33.0)	28.0 (4.1)	.0 (-3.0-2.0)	-0.5 (4.1)	.897
Fantasy	17.0 (15.0-21.0)	17.3 (4.6)	23.0 (18.7-26.2)	21.8 (4.2)	5.5 (2.7-6.0)	4.5 (2.0)	20.0 (19.0-22.0)	20.5 (3.9)	19.0 (17.0-23.0)	20.1 (4.2)	.0 (-5.0-3.0)	-0.4 (3.7)	.002*
Empathic concern	27.5 (26.2-29.0)	26.6 (3.3)	26.5 (24.2-29.2)	26.5 (2.8)	-.5 (-1.7-1.7)	-0.1 (2.5)	27.0 (24.0-32.0)	27.5 (3.7)	27.0 (23.0-29.0)	26.4 (2.9)	.0 (-3.0-2.0)	-1.1 (2.8)	.560
Personal distress	14.0 (14.0-17.5)	15.2 (3.4)	15.0 (11.5-19.7)	14.8 (3.9)	-.5 (-1.7-1.7)	-0.3 (1.8)	16.0 (13.0-17.0)	15.6 (2.2)	16.0 (14.0-16.0)	15.1 (2.3)	.0 (-2.0-2.0)	-0.5 (2.9)	.720
Total IRI	92.0 (82.7-93.5)	87.4 (7.5)	93.0 (85.0-101.0)	91.2 (8.6)	5.5 (.0-7.7)	3.7 (5.1)	93.0 (84.0-98.0)	92.2 (9.0)	87.0 (82.0-98.0)	89.9 (7.9)	-1.0 (-7.0-3.0)	-2.3 (6.5)	.026*

WAI-S, Working Alliance Inventory-Short; IRI, Individual Reactivity Index; Percentile 25-percentile 75; SD Standard Deviation; [1] Exact Wilcoxon rank sum test; *Significant value