

Conducting research in everyday psychiatric settings: identifying the challenges to meaningful evaluation

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A distinction is often made between research into the efficacy of a treatment, i.e. whether it can be shown to work under ideal conditions, and research into the effectiveness of a treatment, i.e. whether it can be shown to work within a routine health service or usual clinical practice. The purpose of this article is to use descriptive information collected from personnel on the implementation and evaluation of a psychological intervention as a way to highlight some of the challenges faced when conducting research within everyday clinical settings. A psychological intervention for low self-esteem was evaluated within a standard inpatient ward for dual diagnosis patients. Descriptive information was collected from interviews to identify the challenges encountered during the research process. A qualitative analysis of interview content was undertaken to identify the major themes. Personnel described a range of patient variables, staff characteristics and organizational factors that hindered the research process. A detailed account of these factors along with potential solutions that can facilitate research in clinical settings is provided. Conducting research within clinical settings requires considerable planning and monitoring throughout the whole research process. Particular attention should be given to the impact of patient characteristics, staff variables and organizational context when designing and implementing research protocols. The value of this type of research within everyday clinical settings has significant implications for improving patient treatment and outcomes across psychiatric services.

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Introduction

There is growing support for the use of interventions that have demonstrated clinical efficacy and are of proven benefit to patients. The use of research-driven knowledge to plan and constitute health services is generally known as evidence-based practice (Sackett *et al.* 1998). Evidence-based practice has the advantage of utilizing only those

interventions or treatment methods that have research-supported evidence for their efficacy which avoids inefficiency, economic wastage and poor, and possibly negligent, clinical practice. Specifically the evidence-based model of practice assumes that observations are systematic, reproducible and unbiased, to allow confident judgements about the efficacy of a particular treatment can be made (Goldner & Bilsker 1995).

Table 1
Factors influencing the implementation of research protocols in everyday settings

Characteristic	Potential issues
Intervention characteristics	Are the aims and methods of the intervention outlined in the protocol appropriate/realistic for this patient group and clinical setting?
Practitioner characteristics	What skills and knowledge are required by staff to successfully complete tasks outlined in the protocol?
Client characteristics	What qualities and skills are needed by patients to successfully participate in the intervention as outlined in the protocol?
Service delivery characteristics	Does the proposed research design described in the protocol fit with current models of service provision?
Organizational characteristics	Can this protocol be implemented in the current organizational structure?
Service system characteristics	How does the aims and design of the protocol relate to the broader aims and operating principles of the health service?

The field of psychiatry is increasingly adopting the evidence-based approach to evaluate pharmacological and psychological interventions (Andrews 1999), although many of the practices within psychiatry have been and are still criticized for having poor or little empirical support (Johnson 1998). While the application of the scientific model of inquiry to evaluate psychiatric interventions is generally seen as a positive step to assure the quality and efficacy of psychiatric treatments offered, it does pose a number of challenges regarding its application in everyday psychiatric practice (Simon 2001, Tarrier & Wykes 2004).

A distinction is often made between research into the efficacy of a treatment, i.e. whether it can be shown to work under ideal conditions, and research into the effectiveness of a treatment, i.e. whether it can be shown to work within a routine health service or usual clinical practice. The effectiveness of a new treatment raises questions about the utility of a new treatment and the practical problems of 'rolling out' new practice so that the benefits of a clinical advance become accessible to patients receiving routine clinical services. It is assumed that research will be of greater relevance to clinical practice the more generalizable the results. Thus, if research is located within the context of everyday practice, there is the potential to maximize benefit to service users. Currently, the large majority of studies that constitute 'evidence' are efficacy studies conducted in controlled environments (Weiz & Jensen 1999). These efficacy studies often only provide limited information about the potential impact of a particular intervention when implemented in an everyday psychiatric setting (Hotopf *et al.* 1999).

A growing number of researchers are now recognizing the value of carrying out effectiveness studies or pragmatic trials in everyday settings to help generate evidence that will directly inform clinical practice (Beutler & Karno 1999, Hotopf *et al.* 1999, Chambless & Ollendick 2001). These pragmatic trials are usually large studies asking the question whether a specific treatment works in a clinical setting. Particular attention is paid to external generaliza-

tion by treating a population who would normally be seen in clinical practice. Typically these studies have broad inclusion criteria and monitor a small number of clinically relevant outcomes.

The carrying out of research studies within clinical everyday settings which empirically evaluate the potential benefits of a particular treatment or intervention is an integral part of identifying effective treatments. The adherence to a sound research protocol helps ensure that information is collected in a valid and reliable way so it can be used in an evidence-based decision-making process to determine the potential worth of a treatment or intervention.

Schoanwald & Hoagwood (2001) have identified a range of factors that can impact on the adherence to a research protocol, specifically relating to the transfer of interventions developed in research settings over to clinical practice. These factors include intervention characteristics, practitioner characteristics, client characteristics, service delivery characteristics, organizational characteristics and service system characteristics (Table 1). The authors contend that it is paramount to examine each of these factors when implementing and evaluating interventions within everyday clinical settings.

Aims of the study

The purpose of this article was to examine the implementation and systematic evaluation of a psychological intervention for low self-esteem to identify and describe some of the challenges faced when conducting research in an everyday psychiatric setting. Information about these challenges was collected from interviews with various personnel involved with the research process. The article also examined how some of these challenges could be addressed and issues that could be considered in future research. It is hoped that this descriptive account of the factors that influence the research process would provide new insight and helpful information to clinicians and researchers who undertake research within everyday clinical settings.

Method

To identify and describe the challenges faced when attempting to conduct research in everyday clinical settings, a cognitive behavioural intervention was systematically implemented and evaluated within a dual diagnosis inpatient ward. Particular attention was given to the factors that caused problems in the adherence to the research protocol, which often provides the theoretical rationale and practical structure for the research undertaken. The research protocol acts as a blueprint for the whole research process, outlining the focus and relevance of the research, the methods and measures that will be used and how data will be collected and analysed.

The research protocol for the cognitive behavioural intervention (Hall & Tarrier 2003) was developed by Professor Nick Tarrier and a team of researchers based at the University of Manchester in the UK. Participants were dual diagnosis inpatients who were stable in symptomology, drug misuse and motivated to participate in a psychological intervention for low self-esteem. Treatment consisted of eight individual sessions with a trained cognitive behavioural therapist. Evaluation was conducted prior to therapy commencing, after therapy and at 3 months follow-up. The experimental design was a within-subjects repeated design and is contained in Fig. 1.

The inclusion criterion for participants was intentionally broad to maximize the numbers of patients that could participate in the intervention and thereby allow an evaluation on a 'typical' dual diagnosis inpatient sample. The broad inclusion criteria meant that patients varied greatly in both the severity of their symptoms and stage of recovery that resulted in challenges in adhering to the research protocol.

A series of interviews were conducted with key staff involved in the implementation and evaluation of the intervention. This representative group consisted of ward staff, managers and therapists involved in various aspects of the research process. Interviews were semi-structured, where a

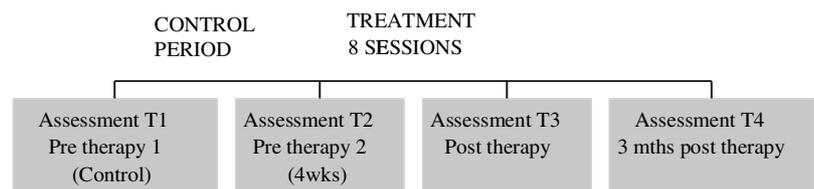
number of open-ended questions were posed, such as 'What factors have disrupted the research process?' and 'What could be done to facilitate the research process on the ward?' Semi-structured interviews were deemed as the most appropriate data collection method, as they allowed participants to generate their own ideas while still ensuring that the descriptive content was focused on relevant issues. Interviews lasted between 15 and 20 min and brief notes were made by the principal researcher (SA). Interviews were conducted throughout the research process to help identify factors that need to be considered in the implementation and evaluation of the intervention. Information from these interviews was analysed using a three-step content analytic procedure involving the drawing all personnel responses together, the coding of these responses into categories and finally the collapsing of response categories into common themes (Post & Andrews 1982).

Based on the themes identified in the interviews, researchers developed a number of interventions to address these challenges which were then incorporated into the research process. Feedback from the impact of these solutions along with the perceived challenges for future studies conducted in clinical settings will be examined in the Results section.

It was hoped that this detailed descriptive account of the research process within a standard psychiatric setting would identify a number a range of salient issues for other clinicians undertaking research within their respective clinical settings.

Results

The results presented are a summary of the common themes that emerged from interviews with staff involved in the research study. The three main themes of patient factors, staff factors and organizational characteristics are also consistent with current literature on implementing research protocols within clinical settings (Schoanwald & Hoagwood 2001). The following section describes the



Assessment Measures

- Robson Self Concept Questionnaire (SCQ): self esteem
- Positive and Negative Syndrome Scale (PANSS): psychotic symptoms
- Beck Depression Inventory (BDI): depressive symptoms

Figure 1
Experimental design for psychological intervention

perceived challenges these factors presented to the research process, the strategies implemented to address these challenges and finally important issues that clinicians and researchers should consider for future research conducted in routine care.

Patient characteristics

Patient characteristics play a defining role in the successful implementation and evaluation of any intervention. The full participation of patients in a given treatment and completion of relevant measures is vital to the success of any research study. Salient patient characteristics within a psychiatric population include personality traits, cognitive abilities, illness history, symptom severity and levels of motivation.

Challenges

Patients participating in this particular intervention had a dual diagnosis (schizophrenia and substance abuse) with the majority having a chronic illness and several long-term psychiatric admissions. Many of these patients had impaired concentration/short-term memory, variable depressive, anxiety and psychotic symptoms, fluctuating levels of motivation and regular relapses. These characteristics displayed by the patients participating in this intervention can be described as typical of a dual diagnosis population (Drake & Mueser 2000).

Strategies implemented

A number of strategies were employed to account for these patient characteristics in order to maximize patient participation and thereby ensure the integrity of the research conducted. To help accommodate for cognitive impairments such as limited concentration, participants were only required to complete relatively brief questionnaires on one or two clinically relevant outcomes. Additionally, training was given to staff in how to support patients in a consistent manner when completing the measures to maximize the reliability and validity of responses obtained. To address variable patient motivation, therapists devoted extra time in engaging patients and establishing concrete goals at the beginning of the intervention as a way of building and maintaining motivation. These strategies were largely based on Rollnick & Millar's (1995) motivational interviewing techniques. Finally, given the broad inclusion criteria, which resulted in large variations in symptom severity, stage of recovery and relapse, participants were allowed extra time to complete the intervention, which increased the time frame for the whole research process. This flexibility not only required extra resources but also acknowledged the characteristics of the particular group.

Furthermore, it allowed more patients to participate and complete the intervention and thereby increased representativeness of the dual diagnosis sample. Based on previous clinical experience, up to four extra weeks could be provided to complete the intervention and evaluation to cater for possible relapses or difficulties with patient participation. Detailed records were kept of any variations in the standard experimental design.

Results and future considerations

As expected, several patients needed extra support when completing the questionnaires, resulting in extra time and staff resources. Furthermore, nearly 15% of patients relapsed during either the control, intervention or follow-up period, resulting in the average treatment time extending from the anticipated 5 months (20 weeks) to just over 6 months (26 weeks). Nearly 25% of the patients failed to complete treatment and/or follow-up assessments, meaning that extra patients had to be recruited to replace those that dropped out. This percentage of non-completers or drop-outs, while high, is a common problem when carrying out effectiveness studies in everyday clinical settings (Haynes & Haines 1998). Both patients relapsing and dropping out of the intervention resulted in extra time and resources being allocated to meet the goals outlined in the research protocol.

Implications for future studies include more careful consideration of what evaluation measures can be used and completed by participants. By selecting valid and reliable measures that can be easily understood and completed by participants without significant staff support could both reduce time/resources used and the potential for staff bias when supporting participants. Providing patients with a clearer rationale for completing measures may also increase motivation and the willingness to complete the measures.

The experimental design requiring 1-month 'stability' in psychiatric symptoms and non-drug misuse was also unrealistic for this particular patient group and resulted in a percentage of patients being excluded from the study as they were unable to meet the inclusion criteria. This is an important issue because if the percentage of patients excluded becomes significant, it can raise question marks over the representativeness of the patient sample and undermine one of the underlying tenets of effectiveness research. Careful consideration in matching the experimental design to patient characteristics is needed to achieve a meaningful evaluation. Further time could be spent on the motivational component of the intervention given the difficulties relating to motivation within dual diagnosis patients. Practically this may mean extending the time to complete the intervention (e.g. changing from 8 to 10 sessions) but could potentially increase patient participation and reduce dropout. Finally, given the rapid changes in

symptomology (e.g. because of relapse, drug misuse) greater and more frequent communication between therapists, ward staff and researchers may help clinicians to respond more efficiently to individual patient needs and ensure their continued participation in the research study.

Staff characteristics

The role of staff is of particular importance for research carried out in everyday clinical settings where there are large numbers of participants and a range of staff involved in their care. It is important to ensure that staff participating in research have the necessary knowledge, skills and time to complete research tasks.

Challenges

An informal audit identified that the majority of staff had little or no experience in carrying out research tasks and varied greatly in their level of interest and motivation to participate in a systematic evaluation of an intervention.

Strategies implemented

Given the variable knowledge, skill level and motivation among the ward staff, a decision was undertaken to provide training to all staff involved in the research study. Training covered the basic principles of conducting research along with a detailed description of the specific research tasks. All staff were provided with clear guidelines about their roles in the research and information where they could access support when completing their tasks. Particular emphasis was placed on highlighting the potential benefits of providing an intervention for low self-esteem and systematically evaluating its impact within a dually diagnosed sample of inpatients. Some of the potential benefits for patients included increased self-esteem, a reduction in symptom severity/risk of relapse and greater ability to use coping strategies for psychotic symptoms (Hall & Tarrier 2003). Information from the evaluation could also allow patients to identify where meaningful change had occurred and provide further motivation to work towards other relevant treatment goals. Potential benefits for staff included caring for a patient group with reduced symptoms and distress that were better able to participate in treatment. Staff would also receive feedback regarding the results of their efforts which in turn could potentially motivate and lift morale.

Results and future considerations

Most staff actively participated in training sessions to increase their knowledge and skills of conducting research, although not all staff were convinced of the direct benefits for them or that there was enough time to complete

research tasks. Interestingly, the scepticism about the benefits of the research study was considerably reduced after a number of patients had successfully completed the intervention and showed positive gains. These 'success stories' were shared informally among various staff groups rather than through official meetings. Interest and motivation in participating in research was initially high, but waned after about 6 months when the amount of work required in supporting patients participating in the intervention was considerably more than initially communicated by researchers. This increased demand on staff resources was due to an underestimation by researchers of the severity patients' cognitive deficits and symptoms and corresponding negative impact on their participation. The rejection of several referrals from staff as these patients did not meet the inclusion criteria further reduced staff interest and commitment to the research.

Considerations for future research studies include the allocation of more time to inform, support and actively involve staff throughout the research process. The power of informal communication among staff as a motivational factor was clearly underestimated in this study and providing a forum where staff involved in research tasks can present and discuss their experiences may address deficit in communication and promote staff interest in research.

Most of the training sessions were didactic in nature rather than collaborative, which may have limited the amount of learning and skills transferred to the workplace. Future studies may consider a more competency-based model of training, where participants have the opportunity to practise new skills/knowledge and receive ongoing supervision within the workplace. A number of studies have shown the value of this competency model, promoting the transfer of skills from the training setting to the work environment (Burnes 2000).

Additionally, the research process in this study was very top-down, with a small group of researchers deciding both the focus and design of the study. Future research studies could be more collaborative where staff provide input into areas that could be systematically evaluated and the various ways this could be carried out. This strategy may increase staff motivation and commitment to research ownership. It is important to acknowledge that these last two suggestions would require a significant investment in resources, time and co-ordination. Finally, the problem of workload exceeding staff expectations and impacting on motivation could be addressed by improving the communication between those responsible for the research process and those staff completing actual research tasks. Improved communication between these two groups could ensure that problems are identified and addressed as they arise. This problem is primarily an issue of communication and

will be discussed in the next section examining organizational characteristics.

Organizational characteristics

One cannot underestimate the importance of organizational factors impacting on the research process in clinical settings. Even if patient and staff characteristics are adequately accounted for, the research process can still falter without adequate support and guidelines from the organizational infrastructure. Some of the typical organizational factors that can impact on the research process include: organizational structure, culture and values, management style, staff roles and modes of communication (Burnes 2000).

Challenges

The organizational setting for this research study was a standard hospital ward for dual diagnosis patients. Inpatient treatment involved a multidisciplinary approach to patient care where a central contact person was responsible for the co-ordination of all elements of treatment. An important feature of the organizational structure was that many staff groups worked shifts and varied greatly in their amount of contact with both patients and other staff. This impacted on the flow of information about the patient among staff groups. The composition of the ward was also constantly changing because of the regular admission and discharge of patients, who presented with a range of symptoms and treatment needs. This inpatient environment posed a number of challenges to conducting a research, including how to efficiently communicate among all staff groups, accommodate for the changing nature of the ward and minimize factors that could disrupt or threaten the integrity of the study.

Strategies implemented

To ensure efficient communication between different staff groups and across shifts, a decision to use a well-functioning and existing communication system (e.g. internal mail and telephone contact) was made. It was hoped this decision would minimize time, cost and stress often associated with establishing a new communication system especially for the research. A similar approach was taken with the co-ordination of the research process where the contact person for each participant was designated as the point of contact regarding all aspects of research. A review of the ward environment was undertaken that examined patient diagnosis, length of stay on the ward and general treatment needs. This information was used by the researchers in the design of the study. Staff roles on the ward were clarified and research tasks allocated based on tasks fitting with existing

roles and responsibilities (i.e. staff with a high amount of direct contact with patients were involved in supporting the patient in the completion of evaluation measures and homework exercises). An audit of the amount of time associated with each of the research tasks was undertaken to ensure staff could complete research tasks within the scope of their usual daily duties and routine.

Results and future considerations

The constant changing nature of the ward environment created greater disruption to the research process than expected. The first problem encountered was the impact of staff sick leave and holidays that hampered communication and reduced the ability of the remaining staff to complete research tasks and support patients participating in the intervention. A further complication was the lack of a contingency plan when the contact person who was the central communication point for the research study was on holiday or sick leave, which also resulted in significant delays in communication and disruption to the research process. The second problem was the variable demands placed on staff particularly when patients became acutely psychotic or suicidal. During these times of crisis, staff tasks were reprioritized, with research tasks often put on hold until the crisis was over. This resulted in many research tasks only been partially completed or forgotten altogether. The third problem was the high staff turnover, which averaged nearly 20% throughout the calendar year. Delays in the recruitment and training of new personnel meant staff knowledge and skills about research were lost and the remaining staff was placed under increased pressure to complete research tasks as well as induct new employees into the ward routines. Staff working shifts and the reliance on a slow and often inefficient communication system compounded the impact of these problems.

Based on the problems encountered within the inpatient setting, a number of suggestions can be made to improve and facilitate the research process. First, a contingency plan needs to be developed to ensure efficient communication when the central point of contact (i.e. the patients contact person) is away or unable to be reached. Second, the selection and trialling of a suitable communication system needs to be undertaken, to ensure it can meet the demands of conducting research within a clinical setting. Given the majority of staff work shifts, this system needs to be accessible at all times of the day to ensure the efficient flow of information. Third, clear guidelines regarding staff roles are required that also account for times of crisis on the ward. Fourth, regular audits of staff sick leave and turnover need to be undertaken to allow a judgement about the impact of staff absence has on skills, stress and the ability to complete research tasks in the current work environment.

Discussion

The following study examined the implementation and evaluation of a psychological intervention as a way of identifying challenges to the research process within a clinical setting. Data collected from interviews with key personnel throughout the research process formed the basis of the information presented. The article provided a descriptive account of the difficulties encountered because of patient, staff and organizational factors and provided a number of ideas how these challenges could be addressed in both current and future research studies. The challenges identified were specific to the research process when conducted within a dual diagnosis inpatient ward, although the authors contend that many of these challenges are also applicable to a range of clinical settings where research could be undertaken. A summary of the main findings is contained in Table 2.

While patient, staff and organizational characteristics were seen as the most salient factors impacting on the research process, it is important to acknowledge that research can be influenced by a broad range of factors. The relevant importance and impact of each factor is dependent on the participants, intervention type and context in which the research is undertaken. Use of qualitative methods may be helpful in identifying which factors are most relevant for a particular study or setting. For a comprehensive description of these factors, see reviews by Slinger (2001) and Schoanwald & Hoagwood (2001).

The implementation of valid and meaningful research studies in everyday psychiatric settings is seen as one of the key activities in the identification of effective and beneficial new treatments for psychiatric patients. There is a growing body of evidence supporting the benefits of psychosocial interventions for serious mental illness including schizophrenia (TARRIER *et al.* 1999, Haddock *et al.* 2002) and further studies need to be conducted. One of the greatest challenges currently faced by researchers is the development and adherence to a research protocol that generates valid information, while also accounting for a range of individual and contextual factors that can compromise the research process. Factors or variables that can compromise the integrity or validity of the research should ideally be kept to a minimum, and when this is not possible, they should be clearly recorded, so their impact can be accounted for. The importance of being able to isolate, define and measure variables underpins empirical research, and it is this principle that allows the researchers to infer the effect of a particular psychiatric intervention on patient outcomes.

The value of carrying out research in everyday settings not only has practical implications in identifying the most effective treatments for patients, but can also aid the transfer of theory into clinical practice. The systematic evaluation of interventions based on promising theory can determine the utility and facilitate their implementation across a range of psychiatric settings, so that large numbers of patients benefit. Conversely, results from well-designed

Table 2
Summary of challenges and considerations for research in clinical settings

Challenges	Strategies implemented	Future considerations
Patient factors		
Cognitive deficits	Limited use of questionnaires	Realistic inclusion criteria to ensure representative sample of participants
Variable motivation	Consistent support from staff	Match measures/research design to patient abilities and stage of recovery
Variable symptoms	Use of motivational techniques and psycho education to inform and motivate patients	Improved communication to detect and reduce relapse/dropouts
Variable stage of recovery	Flexibility in time to complete intervention	
Regular relapse		
Staff factors		
Limited experience in conducting research	Audit of staff skills and training needs	Use of competency-based model to promote transfer of skills to workplace
Variable motivation and interest	Provision of training to all staff groups	Increase staff involvement in research design and implementation
	Highlight benefits of research outcomes for both patients and staff	Promote informal discussion to maintain motivation among staff
	Provision of regular support and advice	
Organizational factors		
Effective communication between all staff groups	Selection of well-functioning and accepted communication system	Trialling of communication system
Constant change in patient group	Clear description and guidelines on tasks	Contingency plans for staff turnover, sick leave and crisis situations
Staff working shifts	Audit of time required for research tasks	Continuous monitoring/feedback to deal with changes in clinical setting
	Use of central point of contact in research process	Regular audit of staff skills, stress levels and training needs

research studies conducted in everyday settings have the potential to inform and contribute the development of theory. Service users also play an important role in research in clinical settings and there is no doubt involvement of service users in research and their views will increasingly inform and drive the research agenda.

In spite of the potential for increasing staff workload and economic costs of participating in research, there are also potentially enormous benefits. Research involves innovation and development and advance in clinical practice; it fosters an environment of progress and optimism. A workplace that has a culture of good practice and innovation will attract and retain high-quality staff. There are benefits for the patients in that clinical developments are always on the horizon and this optimism will motivate the staff. In the UK, health services are financially rewarded for carrying out research and development and it is viewed as not only a legitimate activity but also essential for a modern health service.

While the following study examined how a range of factors can impact on the design and implementation of a research protocol within an everyday clinical setting, it could also be useful to examine how different theories or models of effective change could inform the development of the research protocol within routine care settings. The research protocol can be conceptualized as a blueprint or the 'how to component' of a new change initiative (i.e. the implementation and evaluation of a clinical intervention). Application of these different theories to a particular organizational setting could highlight a range of areas that need to be considered when conducting research and potentially facilitate the success of the whole research process. Furthermore, using a particular theory of change to inform the design of the research protocol could help contextualize the theory, thereby promoting its effective application within a particular setting (i.e. a psychiatric ward or community health centre). Future studies could examine the relationship between the research protocol and theories of change, which could provide reciprocal benefits to both fields and help bridge the gap between theory and practice.

In conclusion, this article provided a descriptive account of some of the challenges faced when conducting research in an everyday psychiatric setting. The information collected from participants confirmed that a range of patient, staff and organizational factors could challenge the adherence to the research protocol and potentially disrupt the whole research process.

Successful research in clinical settings not only requires the design of an appropriate protocol while considering a range of factors such as patient characteristics, staff abilities and context, but equally requires vigilant monitoring throughout the whole research process to ensure that any

problems that can, and usually do arise are identified and dealt with appropriately. This continuous cycle of monitoring and gathering feedback about the ongoing research process is particularly important within clinical settings that are in a constant state of flux, and where even small changes can disrupt the most well planned of studies. The value of running a pilot study prior to commencing the research as a way to identify some of these potential challenges including the 'cycles of change' within a given clinical setting cannot be underestimated.

The principles of carrying out scientific and meaningful research are not new, but the implementation of these principles within everyday clinical settings poses a number of new challenges for researchers that need to be identified and addressed. No single profession should be held accountable for the success or failure of a research conducted within a clinical setting, rather worthwhile research should be seen as the successful collaboration between patients, clinical staff, researchers and managers.

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