Original Article

Mental Health Professionals' Perceived Barriers and Benefits, and Personal Concerns in Relation to Psychiatric Research

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Abstract

Aim: Mental health professionals can contribute to generating a strong evidence base for policy and practice in psychiatry. An insight into their perception of psychiatric research is important for planning support strategies. This study explored healthcare professionals' perceptions of barriers, benefits and concerns about psychiatric research in a Singapore psychiatric hospital. Materials and Methods: Self-administered questionnaire was employed to collect socio-demographic data and opinions on research. Likert scale was used for the responses and descriptive statistics and ordinal regression were used for data analysing. Results: 93.8% respondents perceived "contribution to medical knowledge/ public health" to be a major benefit of conducting research. 86.7% respondents felt that "learning experience" was important. "Prestige/publication" (52.7%) and "financial gain" (76%) were perceived to be unimportant. "Clinical load of patients", "lack of skilled personnel to assist in research" and "insufficient funding" were identified as important barriers by 72.4%, 70.6% and 68.9% respondents. "Time constraints", "patient and family readiness to research participation", "insufficient training" and "concerns about patient welfare" are major concerns while conducting research. Conclusion: To the study team's best knowledge, this is the only study of mental health professionals' perceptions on psychiatric research. It is useful for strategising research planning and enhancing the research culture in the hospital.

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Key words: Healthcare professionals, Mental health research, Research planning strategies

Introduction

Epidemiological research has shown that mental disorders can result in considerable healthcare and other opportunity costs.[1] There are some reports that have highlighted the negligence of mental health and the lack of recognition of the importance of mental disorders.[2,3] Five of the world's 10 leading causes of disability have been reported as depression, alcohol abuse, bipolar mood disorder, schizophrenia and obsessive-compulsive disorder.[4] The Global Burden of Disease (GBD) study conducted by the World Health Organization (WHO)[4] unfolded the true magnitude of the impact of mental health problems that have been underestimated for a long time.

Although the vast progress in the development of pharmacological and psychological interventions for mental illness has been achieved through the immense growth of both basic and clinical psychiatric research,[5] there is still an ever-growing requirement and emphasis on the development of newer agents and interventions in this specialised area of health. Further advances in mental health research will deliver greater benefits to current and future patients and also provide information for the policy and practice in psychiatry.

Research is important, as many advances in clinical practice have been crucially dependent on the findings of research.[6] The engagement of epidemiological research,[7] in addition to conventional research methodologies, has increased the understanding of the pathogenesis of the mental illness. According to Michels,[5] "psychiatric research is burdened by a long history of public fear of mental illness, prejudice against the mentally ill and distrust of those who treat or study them". Furthermore, the various ethical concerns are particularly acute and worrisome in psychiatric research.[8] The combination of various factors

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such as ethical issues, the methodological problems of studying both the brain and behavior and clinical burdens of handling psychiatric patients[5] discourages many researchers in psychiatric research.

In mental health settings, psychiatrists, nurses and allied health professionals form an intrinsic network of the mental healthcare system. According to Mulhall,[9] there is a need to recognise the different cultures in which researchers and nurses work, as they have different objects of interest. A positive research culture is a pre-requisite,[10] which together with interest and administrative support, will promote a research-oriented culture. Prior to creating a vibrant culture of clinically relevant research and paving the way to improvements in mental health, research must be an integrated part of the mental health professionals' ideas, rules and understanding.[9] To achieve this in a mental health setting, it is important to get an insight into mental health professionals' perceived barriers, benefits and personal concerns of psychiatric research. This will in turn provide leads on mental health professionals' needs, requirements and expectations in research. It is essential to have a research-orientated management, especially senior administrators, who are involved in the strategic direction of an organisation or nation and will indirectly affect mental health professionals' participation in research activities. With the concerted effort of the mental health professionals in contributing strong evidence base for policy and practice in psychiatry, a favourable, attractive and ethical research culture can be created and maintained.

An understanding of the insight is also important for the Institute's or even a nation's research planning, support strategies and resource allocation for research. This will help to identify the research needs and opportunities and acknowledging the need for research capacity in any research plan.[11] All these are interrelated as the discrepancy between the increasing amount of research results and the lack of utilization into clinical practice is often seen due to the factors such as lack of financial resources, poor management and infrastructure.[12]

According to Gordon,[8] the history of psychiatric research is littered with public and private sector studies that have exploited issues such as vulnerability of mentally ill, neurologically impaired and developmentally disabled research subjects. There are several articles that have reported on the attitudes of healthcare providers towards ethical aspects in psychiatric research.[13-15] Other studies that covered attitudes towards research are either conducted on general practitioners[11] or on areas such as perception of research utilization by health professionals.[16] We did not find any report of similar studies to date that focus on the attitudes of healthcare providers, especially those in the field of mental healthcare, towards psychiatric research. The objective of this study was to assess the attitudes of mental health professionals towards issues related to mental health research and also to evaluate the difference of opinions between their attitudes towards research.

Materials and Methods

Study Design and Data Collection

Four hundred and sixty healthcare professionals currently working in a psychiatric hospital were invited to participate in this survey based study. The cross-sectional survey was conducted in the only state psychiatric hospital in Singapore – an island state in Southeast Asia. There were no age restrictions for the participants and prior research experience was not an exclusion criterion. The participants were invited and notified of the survey by electronic mail communication. This was followed up by personally distributing the survey questionnaires with return envelopes to each department or ward. Another round of invitations was followed up a month later. Participants were asked to rate the views on a 5-point importance scale ranging from "not important" to "very important". There were also open-ended questions to enable free responses on topics such as training and support. Common barriers, benefits and personal concerns that were explored by other researchers listed in the available literature were partly used for the assessment in the survey.[14,17] Modifications were made to suit the aspects of mental health research. The data collection took place over a 4-month period that included 2 rounds of invitation.

The study was approved by the Ethics Review Board. Since it was an anonymous survey and did not involve any risk to the participants, waiver of consent was obtained prior to the conduct of the survey. The participants were informed that all the responses would be treated with strict confidentiality and anonymity. Identifiable data such as name, identification number and date of birth were omitted in the questionnaire. The participants were also informed that they had the right to decide whether they would like to participate, i.e., their participation was voluntary and they did not need to reply via electronic mail of their decision.

All psychiatrists and allied health professionals were invited for the study, as they are the main cores of professionals doing research in the hospital. Nurses who are state-registered staff nurses and above are invited for the study. Administrators of only executive level and above were invited, as they are the influential staff who have an impact on the research directions and strategies in the hospital.

Data Analysis

The survey data were entered and analysed by SPSS (Statistical Package for Social Science 14.0). Double data entering were conducted to screen for data error and minimise wrong entry. Frequency and descriptive statistics

Table 1. Socio-demographic Profile of the Respondents

Variable	% (N)
Gender	
Male	44.1 (146)
Female	55.9 (185)
Age (y)	
20-30	36.0 (119)
31-40	25.7 (85)
41-50	16.3 (54)
51-60	22.1 (73)
Ethnicity	
Chinese	64.0 (212)
Malay	15.1 (50)
Indian	12.1 (40)
Others	8.8 (29)
Religion	
Buddhism	19.6 (65)
Taoism	2.1 (7)
Hinduism	7.3 (24)
Islam	15.4 (51)
Christianity	37.2 (123)
Free Thinker	15.4 (51)
Others	3.0 (10)
Current profession	
Administrator	5.7 (19)
Psychiatrist	6.6 (22)
Nurse	70.7 (234)
Allied health	16.9 (56)
Highest education (country)	
Overseas	20.8 (69)
Local	79.2 (262)
Previous research experience	
Yes	74.3 (246)
No	25.7 (85)
Education level	
Non-tertiary	58.6 (194)
Tertiary	39.3 (130)
Others (i.e. overseas qualification)	2.1 (7)

were computed for the socio-demographic variables and for the individual factors in the barrier, benefits and personal concerns aspects. Ordinal regression that gives the trend of each variable and factor with the outcome were used in this study. The nurses group, being the largest group and actively involved in research, was used as the comparison group. The effect of gender, age group, ethnicity, current profession, highest education attained (local/overseas), previous research experience and education level were factored into the models. Statistical significance was set at $P < 0.05$.

With respect to the open-ended questions based on training and support for research, text-analysis survey version 1.5 was used to systematically categorised and systematised the data. SPSS was then used to descriptively analyse the data.

Results

Socio-demographic

A response rate of 73.7% was achieved in the survey. Of the total 460 participants, there were 44.1% males and 55.9% females. Majority of the respondents were nurses (70.7%), followed by allied health professionals (16.9%), psychiatrists (6.6%) and administrators (5.7%). The mean age of the respondents was 38.7 years [standard deviation (SD) 11.87], with most of respondents belonging to the age group of 20 to 30 years (36%), followed by those in the group of 31 to 40 years (25.7%). Most of the respondents were of Chinese ethnicity (64.0%), with non-tertiary education (58.6%), without past research experience (74.3%), having obtained their highest education locally in Singapore (79.2%).

Benefits

A descriptive analyses showed that a vast majority of respondents (93.8%) perceived "contribute to medical knowledge/ public health" to be a major and first ranked benefit of conducting research. Out of 93.8% respondents, 35.6% of them listed it as very important. Out of the 5 benefits listed, the respondents viewed "learning experience" and "direct benefit to patient" as the second most important benefit, with 86.7% and 80.9% of respondents classifying it as important and very important respectively. 52.7% and 76.0% of the respondents perceived "prestige/publication" and "financial gain" as not or not so important benefits respectively.

Barriers

"Clinical load of patients" (72.4%), "lack of skilled personnel to assist in research" (70.6%) and "insufficient training" (68.9%) were identified as the 3 barriers by the respondents. Other important barriers identified by respondents included "lack of infrastructure" (55.6%) and "too many ethical concerns" (51.7%).

Personal Concerns

"Time constraints" (82.4%), "patient and family readiness to research participation" (78.3%), "insufficient training" (75.4%) and "concerns about patient welfare" (73.2%) emerged as the major personal concerns regarding research among the respondents. Issues such as "counterparts

Table 2. Factors in Benefits, Barriers, Personal Concerns

Factor	Rank of importance % (N)	Not/Least/ Not so important	Important	Very important
Benefits of conducting research				
1. Contribute to medical knowledge/public health	1	6.3 (21)	58.0 (192)	35.6 (118)
2. Learning experience	2	13.3 (44)	65.8 (217)	20.9 (69)
3. Direct benefit to patient	3	19.1 (63)	54.2 (179)	26.7 (88)
4. Prestige/Publication	4	52.4 (173)	40.6 (134)	7.0 (23)
5. Financial gain	5	76.0 (250)	22.2 (73)	1.8 (6)
Barriers towards research				
1. Clinical load of patients	1	27.6 (91)	50.6 (167)	21.8 (72)
2. Insufficient funding	3	31.1 (103)	50.2 (166)	18.7 (62)
3. Lack of skilled personnel to assist in research	2	29.4 (97)	51.5 (170)	19.1 (63)
4. Lack of infrastructure	4	44.4 (147)	43.8 (145)	11.8 (39)
5. Too many ethical concerns	5	48.3 (160)	40.2 (133)	11.5 (38)
Personal concerns in conducting research				
1. Patient and family readiness to participant	1	21.7 (70)	57.6 (186)	20.7 (67)
2. Concern about patient welfare	4	26.8 (86)	60.7 (195)	12.5 (40)
3. Time constraints	2	17.6 (57)	57.7 (187)	24.7 (80)
4. Insufficient training	3	24.6 (80)	54.5 (177)	20.9 (68)
5. Paper work requirements	5	30.2 (98)	46.5 (151)	23.4 (76)
6. Lack of knowledge of research process	6	31.1 (101)	49.8 (162)	19.1 (62)
7. Counterparts negative attitude towards research	7	43.3 (140)	44.3 (143)	12.4 (40)
8. Lack of interest	8	51.1 (165)	35.9 (116)	13.0 (42)

* The rank of importance is based on the total score of "very important" and "important"

negative attitude towards research" and "lack of interest" were viewed as less important with less than 60% of the respondents classifying them as important or very important.

Discussion

This study analyses the perceived views of mental health professionals towards psychiatric research. Several studies[18-21] done in nursing have identified that staff attitudes are important variables for the overall successful development and maintenance of a research programme. A high number of respondents perceived "contribute to medical knowledge/ public health" as a major benefit in conducting research. This perception is important for the assurance of the future of psychiatric research in the hospital. Although psychiatric research is important, it has a history that has serious abuse and the area of clinical psychiatric research has created challenging ethical dilemmas.[8]

As reported by Gordon,[8] advances in mental health science promise great benefits for those who are suffering, or who will eventually be suffering from mental illness. This attitude is shared by the respondents who viewed "direct benefit to patient" as the second most important benefit of conducting research. People with mental illness may be vulnerable in several ways and overly restrictive research regulations and ethics which focus primarily on their vulnerabilities and deficits could discourage many researchers in one way or another.[5] The respondents were not discouraged by this aspect and viewed conducting psychiatric research as a learning experience. Mental health professionals recognise the role of research in improving patient care and treatment instead of focusing on "prestige/ publication" or even "financial gain". However, it was reported in Roberts et al[14] that this perspective was yet to be fully predicted and understood by psychiatrists. It is important to present the research findings in a way that mental health professionals can incorporate them into their daily clinical practice.[11] In this study, significantly more (P <0.05) allied health professionals and psychiatrists, as compared to nurses, tend to view "contribute to medical knowledge/public health" and "learning experience" as important benefits in conducting research. It is fundamental to understand the different cultures and way the different types of professionals work, in terms of conducting research.[9] This will give rise to the different perceptions on

Table 3. Trend of Attitudes and Perceptions of Mental Health Professionals towards Psychiatric Research

Factor	Trends
Benefits of conducting research	
Contribute to medical knowledge/public health	Respondents having studied overseas (P <0.05) or having research experience (P <0.001) are more likely to view it as important.Allied health professionals are more likely to view it as important, as compared to nurses (P <0.05).
Learning experience	Male respondents are more likely to view it as important (P <0.01).Chinese respondents, as compared to other races are less likely to view it as important (P <0.05).Psychiatrists, as compared to nurses, are more likely to view it as important (P <0.05).
Direct benefit to patient	Respondents having research experience are more likely to view it as important (P = 0.01).
Prestige/Publication	Older respondents are more likely to view it as important (P <0.05).Respondents having studied overseas are more likely to view it as important (P <0.005).Malay respondents, as compared to other races, are more likely to view it as important (P <0.05).
Financial gain	Male respondents are more likely to view it as important (P <0.05).Non-tertiary educated respondents are more likely to view it as important (P <0.05).
Barriers towards research	
Clinical load of patients	Respondents having research experience are more likely to view it as important (P = 0.005).Allied health professionals, as compared to nurses, are more likely to view it as important (P = 0.005).
Insufficient funding	Chinese (P <0.01) and Indian (P <0.05) respondents, as compared to other races, are more likely to view it as important.
Lack of skilled personnel to assist in research	Chinese respondents, as compared to other races, are more likely to view it as important (P <0.01).Administrators (P <0.05) and psychiatrists (P <0.05), as compared to nurses, are less likely to view it as important.
Lack of infrastructure	Younger respondents are more likely to view it as important (P <0.05).Respondents, having research experience, are more likely to view it as important (P <0.05).Psychiatrists, as compared to nurses, are less likely to view it as important (P<0.05).
Too many ethical concerns	Administrators (P <0.05) and allied health professionals (P <0.005), as compared to nurses are less likely to view it as important.
Personal concerns in conducting research	
Patient and family readiness to participate	Administrators, as compared to nurses, are less likely to view it as important (P <0.05).
Time constraints	Respondents who studied overseas are more likely to view it as important (P <0.05).Respondents having research experience are more likely to view it as important (P = 0.001).
Paper work requirements	Respondents who studied overseas are more likely to view it as important (P <0.05).
Counterparts negative attitude towards research	Allied health professionals, as compared to nurses, are less likely to view it as important (P <0.05).

the extent research is integrated as part of their ideas, rules and understandings.

In order to enhance a research-based culture within an organisation or a nation, it is fundamental to identify the barriers which researchers identify for conducting research. Brown[22] called for the need to increase attention to these barriers in creating research strategies. Although physicians are expected to keep up with research and use research findings in their practice,[16] nevertheless there is still a need to make an effort to identify, resolve and remove the barriers to provide a more conducive environment for research.

Mental health professionals are commonly known to be service-orientated with a heavy patient load and thus unable to devote time for research. In Singapore too, the level of mental health research activity varies between the various psychiatric centres. Most of these centres are almost wholly service-oriented.[23] "Time constraints" naturally becomes an important personal concern. These factors were reported in a number of studies on nurses' attitudes toward research and research utilisation.[12,24,25] They reported barriers to be "time-consuming aspects of research", "feelings of lack of self-confidence in conducting research" and "lack of administrative support".[24] A study conducted by Adamsen et al[12] showed that the research-active nurses had to overcome the time barrier and while working in clinical practice, they still had to set time aside for research. Mental health professionals might perceive a need for skilled personnel to assist them in research. To overcome this barrier i.e., "lack of skilled personnel to assist in research",

funding might be needed to engage additional manpower, such as research assistants. All these factors are inter-related and influence directly on each other in the perceived attitudes of the mental health professionals. As reported by Adamsen et al,[12] time and financing were found to be difficult barriers that need to be overcome by the researchers. However, time constraints may not be the real barrier for conducting research but may be just a socially accepted reason that people use to mask their lack of interest in research. The factor "lack of interest" is ranked the lowest among the factors. This could be because the respondents wish to conform to socially acceptable reasons.

Patient and family readiness to participate in research is very important. The respondents have listed "patient and family readiness to research participation" and "concerns about patient welfare" as 2 of their 4 main important personal concerns. As reported by Warner et al,[26] schizophrenia patients have expressed that helping others and helping science are important reasons for patients' participation in research and this was somehow inaccurately predicted by psychiatrists. The lack of understanding the patients' perception towards participating in research may discourage mental health professionals from conducting research and which may explain why these 2 factors were listed as 2 of their main important personal concerns. Mental health professionals might perceive "patients' welfare" to be defined as research that should be beneficial to the patient directly. It was reported in Warner et al[26] that patients agreed that helping science and helping others with schizophrenia were important motivations for them to participate in research.

The ordinal regression analysis shows the trends of the respondents towards each factor. It can be argued that the respondents could have identified themselves with the individual factor and thus responded to each statement in the survey, in relation to their own situation. It indicates some interesting differences in the views of the respondents towards conducting research with respect to different gender, age group, education level, previous research experience and profession. It indicates the considerable factors that should be taken into account when shaping the research agenda. This is especially true when grooming younger researchers to take up research. Respondents with previous research experience indicated "clinical load of patients" and "lack of infrastructure" as important barriers. They recognise that research is time consuming and understand that resources and infrastructure are needed to establish and maintain any form of research culture. It is also worth noting that researchers with previous research experience felt that factors such as "contribute to medical knowledge/public health" and "direct benefit to patient" are important benefits in conducting research. It gives credence that the researchers will continue in their research work, based on the core values they have acquired while conducting research.

Improvements

There has been an effort to increase the interest among health professionals to take up research within clinical practice.[12] It is especially applicable to clinicians who are encouraged to take up career tracks as 'clinician scientists'. Smirnoff et al[25] reported that nurses with a Masters' degree are the pivotal point for research involvement. Career track for nurse researchers is reported as one way to bring research into practice and vice versa.[25] With an increasing demand for more health professionals to embark on research, research support and training are needed to support this demand. As indicated by McColl et al,[27] training is needed not only in undertaking research but also needed in understanding and using research.

The areas of support which the respondents hoped to have were "protected time", "mentoring", "manpower assistance", "financial assistance", training in "research methodology and tools", "ethics and regulation", "data management" and "statistics". Through education and training, potential researchers can be identified, encouraged, nurtured and supported.[25] Another challenge is to identify ways to maximise the contribution and participation of these research-reachable individuals who are identified and nurtured. Policy makers have to find ways to retain good researchers and the need to create a conducive research environment is a pre-requisite to retaining good researchers.

Presently, there are not enough psychiatrists and nurses worldwide.[28] A major problem is how to give "protected time" to psychiatrists and nurses to conduct research. However, if the psychiatrists are given protected time to do research, one is faced with the problem of finding another psychiatrist of an equivalent or supernumerary position to cover the clinical duties.

In Singapore, in 2005, the Ministry of Health tasked a Committee of policy makers and mental health professionals to formulate the first National Mental Health Policy and Blueprint for the year 2007 to 2010. After deliberation, the Committee articulated a number of recommendations. One of the aims stated is to rectify the shortfall in mental health workers, and the other is to encourage research. These initiatives should help reduce the clinical workload and encourage the adoption of research as a component of every clinical programme.[23]

The Government of Singapore has also recently renewed its support for the Biomedical Sciences initiative by earmarking S$1.4 billion with a focus on strengthening capabilities in translational and clinical research, which are essential to translate basic discoveries in the laboratory into clinical applications to improve human healthcare. Grants and fellowships are being offered to clinicians who are

keen to pursue research to enable Singapore to establish a critical mass of high quality clinician-scientists. These include the Clinician Scientist Award (CSA) aimed to build a talent pool of clinician scientists in Singapore and to support them in carrying out internationally competitive and impactful translational and clinical research. It is foreseen that they will spend 70% to 80% Full Time Equivalent of their work hours conducting research and that they will be supported by their host institutions, which will provide a conducive environment and encourage scientific investigation, training and collaborations.

Limitations

While the strength of this study is that it focuses on a simple procedure (i.e., involving only a survey questionnaire and not an interview), there are other limitations. This study is based exclusively on self-report, leading to limitations in validity.[12] The respondents might have the tendency to conform positively to the questions and no actual decision may be involved. The participants might not have the necessary and sufficient experience and knowledge to answer the questions. We tried to compensate for this deficiency in the internal validity by piloting the questionnaire on 5 mental health professionals of each different group during the study design phase.

Another possible limitation is that not all of the hospital employees were selected for the study. This was a deliberate decision as it was decided that nurses with a higher level of education will be doing research, based on the literature review reported by Smirnoff et al[25] that higher level of education is identified as a factor that positively impacts research performance or use.

With the recognition of these limitations, our findings are of relevance to our setting. No other similar study has been conducted as yet in mental health settings and hence no comparison of the study can be made. However, it presents the unique aspects of this study as the mental health setting is such a specialised area of health.

Conclusions

The study provides an insight into the local mental healthcare professionals' views (barriers, benefits and personal concerns) towards psychiatric research. The findings provide leads for policy makers to understand and address the concerns of mental health professionals and possibly design a research policy tailored to overcome these obstacles. A comprehensive research programme within the hospital will succeed better if there is incorporation of the different beliefs of research across all professionals.

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