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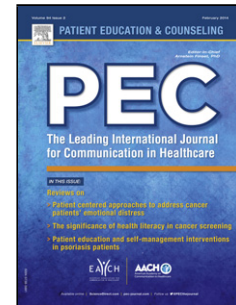
Title: Patient perceptions of participation in group-based rehabilitation in an inpatient brain injury rehabilitation setting

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## Highlights

- Participants perceived that groups were largely positive and can facilitate a sense of normalcy.
- Interactions with peers, and opportunities for learning and 'doing' emerged from participant perspectives.
- Key considerations for groups were identified including the mix of participants.
- A consumer-focused approach to health care would support the use of occupational therapy groups in TBI rehabilitation.

## Abstract

**Objectives:** The use of groups is common in healthcare. There is a paucity of research which captures patient experiences of group participation. The aims of this study were to explore the perceptions and experiences of people with traumatic brain injury (TBI) about their participation in inpatient occupational therapy rehabilitation groups

**Method:** A phenomenological approach guided the study. Patients with a TBI who were participating in an inpatient occupational therapy group program were recruited. Data were collected through semi-structured interviews and analysed using content analysis.

**Results:** Fifteen participants consented to the study. Three themes emerged from the data; 1) feeling normal, comfort and connected; 2) learning by doing, seeing and sharing and; 3) practicalities of groups. Participants highlighted that groups facilitated

opportunities to practice skills and prepared them for the real world. Opportunities for interaction and support were also emphasised as positive by participants.

**Conclusion:** Perceptions of patients about participation in groups were generally positive, and as such a consumer-focused approach to healthcare would support the use of occupational therapy groups in TBI rehabilitation.

**Practice Implications:** Recommendations from the perspectives of patients include consideration of the selection of group participants, and meeting individual needs and goals within a group setting.

**Key words:** groups, traumatic brain injury, patient perspectives

## 1. Introduction

Groups are commonly used in health care [1]. The value of opportunities for peer support and learning, and adjustment following injury or illness are consistently identified in the rehabilitation literature [2-4]. Rehabilitation groups can be used for education, to practice skills and strategies, to maximize therapy intensity, and to provide opportunities for peer support [1,2]. The focus of rehabilitation groups can vary, from discipline specific such as physical fitness and exercise groups [5], to multidisciplinary such as coping skills groups [6]. The profession of occupational therapy has a long history of using groups as a core treatment modality, and groups continue to be commonly used across clinical settings [7]. Groups are frequently used in traumatic brain injury (TBI) rehabilitation programs [8,9].

TBI are those injuries caused by a blow, bump, blast, or jolt, such as those resulting from a road traffic accident, that disrupt normal brain function [10,11]. Approximately

10 million people worldwide sustain a TBI annually [12]. The severity of disability resulting from TBI can vary greatly, and has the potential to impact on physical, cognitive and psychosocial functioning, and participation in life roles [13,14]. Rehabilitation is recommended following a TBI to maximize recovery [10,11,15,16]. A study by Hammond *et al.* [8] of 2130 consecutive rehabilitation admissions with TBI (in the United States and Canada) identified that on average groups accounted for 13.7% of patient therapy sessions, with patients spending 10.8 hours on average in groups. In rehabilitation, as in other health services, patient feedback about their perspectives and experiences is important.

Consumer engagement has been identified as integral to health service development, delivery and evaluation [17]. The Declaration of Alma Ata of 1978 “requires and promotes maximum community and individual self-reliance and participation in the planning, organization, operation and control of primary health care” [18, p.2]. Implementation of this requires patient feedback regarding their experiences of health services and interventions [19,20].

A scoping review exploring the use of groups in TBI rehabilitation identified that despite the accepted need for consumer engagement in healthcare, only approximately one third of included studies incorporated patient feedback [21]. Most studies sought basic feedback about content, resources and facilitator style, rather than about group participation. Further, only four qualitative studies investigated patient perspectives. Themes common across these studies included that groups provided opportunities for peer support and learning, reduced social isolation, and assisted adjustment post TBI [22-25]. The scoping review concluded that while

groups are widely used, there is limited specific literature to guide clinicians in the delivery of groups in TBI rehabilitation [21]. Given the lack of depth of knowledge, and the importance of patient feedback, further in-depth analysis of groups from the perspectives of patients with TBI is warranted.

The Brain Injury Rehabilitation Unit (BIRU) at the Princess Alexandra (PA) Hospital in Queensland, Australia provides specialist multidisciplinary rehabilitation following brain injury. Occupational therapy services are delivered through both individual and group therapy. The group program is underpinned by theory and current evidence regarding groups, TBI rehabilitation, occupational therapy and client-centred practice [26]. The program utilises formal processes for referral, goal setting, participation and evaluation [26]. Four groups are facilitated multiple times per week: meal preparation (breakfast and lunch), community access, cognitive, and upper limb groups. This study was part of a larger project evaluating the group program.

The study aim was to explore the perceptions and experiences of people with TBI about their participation in inpatient occupational therapy rehabilitation groups.

## **2. Method**

### *Study design*

This qualitative study was guided by phenomenological theory to investigate the lived experiences and perceptions of individual participants [27] using face-to-face semi-structured interviews [28].

Ethical clearance was obtained from the Metro South Human Research Ethics Committee (HREC/13/QPAH/367) and the Medical Research Ethics Committee, The University of Queensland (Approval number: 2013001094).

### *Participants and setting*

Participants were eligible for inclusion if they were participating in the inpatient rehabilitation program in the BIRU at the PA Hospital. Further eligibility criteria included: a diagnosis of TBI, aged 18-65 years (i.e., broad working age), emerged from Post-Traumatic Amnesia (PTA), participation in at least two occupational therapy groups, and adequate cognitive and communication ability to provide informed consent and participate in an interview. A purposive sampling strategy was utilised to include a sample with a range of demographics [29,30]. Sample size was based on reaching theoretical saturation, where subsequent interviews provided no new additional insights.

### *Data collection*

Interviews were conducted in a quiet space, by the researchers (FP or ED), using an interview guide (see Table 1). The interview guide contained broad topics for discussion and questions to use for prompting.

*Insert Table 1 about here*

Consideration was given to the potential impact of TBI on participation in an interview. Strategies were employed to enhance participation including monitoring fatigue, and prompting to assist with cognitive difficulties [31-33]. Interviews were audio-recorded and transcribed. Strategies to maximise transcription quality included a quiet interview space, testing sound quality at commencement of interviews, and checking transcribed data to ensure accuracy [28,34].

### *Data analysis*

The data were analyzed using content analysis [35,36]. As prior knowledge about patient perceptions of occupational therapy groups in TBI rehabilitation was limited, an inductive approach was taken to the data [36].

The three phases of content analysis, as outlined by Elo and Kyngas [36], were followed; preparation, organizing, and reporting. During the preparation phase the researchers read the transcripts several times. The organising phase involved open coding of transcripts with 'meaning units' or sections of the transcript condensed into 'condensed meaning units', and codes identified. An initial list of codes was developed from independent coding of two transcripts by three researchers, and discussion to reach consensus followed. The three researchers then independently applied the list of codes to two further transcripts. Further discussion and consensus followed, and the list of codes was revised. The revised list of codes was then applied to the remaining 11 transcripts by the first author. Queries with coding were discussed with the research team. Codes were grouped into categories and



subcategories, and then abstracted into emerging themes. The final phase of analysis involved writing up and reporting the process and results.

The underlying motivation to conduct the study arose from a need to evaluate service provision. Reflexivity was encouraged during regular team meetings to identify the researchers' own perspectives, and the potential impact on findings.

Methodological quality was considered throughout the study, guided by Lincoln and Guba's four criteria for trustworthiness [37]. The use of established research methods, opportunities for regular debriefing and peer scrutiny enhanced the *credibility* of the study. To establish *transferability*, detailed information about the study context and setting was documented throughout the study. *Reliability* was addressed through thorough documentation of the processes and identification of study limitations. Reference to field notes and documentation of data analysis including queries and consensus was used to assist identification of potential bias and address the *confirmability*, and objectivity of the results.

### **3. Results**

Fifteen participants consented to participate. The mean age of participants was 37.9 years (SD = 13.6). Four participants were female and 11 were male. Participants predominantly had an extremely severe TBI, indicated by PTA duration of greater than four weeks.

Three themes emerged from the data, 1) feeling normal, comfortable and connected; 2) learning by doing, seeing and sharing and; 3) practicalities of groups and recommendations. Themes and codes are identified in Table 2.

*Insert Table 2 about here*

### ***Feeling normal, comfortable and connected***

The concepts of feeling normal, comfortable and connected were overlapping and interconnected. Participants described that groups provided opportunities for 'normal' interactions, and to do 'normal' things. Feeling normal was also described in the context of realising they could still do activities that were part of their everyday life prior to their TBI. One participant explained, "*... I was questioning would I be who I used to be um, it started to remind me, you are who you used to be... it was helpful on getting back to normal*" (P36). Figure 1 provides a diagrammatic overview of factors contributing to feeling normal, comfortable and connected.

*Insert Figure 1 about here*

Perceptions of satisfaction with group participation were reflected in the codes of satisfaction (n=11), enjoyment (n=6) and fun (n=5). Comments such as, "I very much enjoyed it, you know, so I thought it was very helpful." (P25) and, "I think it's [the groups] quite positive and I think it's a good thing to do group things ..." (P44) exemplified this.

Group activities were seen as an opportunity to work together, receive and provide support, and motivate others. Ten participants described the support that group participation facilitated. For example, “it gives you... something to strive towards.... And like also help along people that are behind you as well. Thinking like yeah, you know, come on, this is what you’re looking for mate, here you go...” (P25). Working together was discussed by nine participants, with one participant describing, “in that group yesterday that was so supportive... we were working together so much as a team that it was really fantastic.” (P39).

Group composition in the context of feeling comfortable and connected was discussed by participants in terms of diversity of backgrounds and experiences (n=7). Of the seven participants who discussed diversity, the majority (n=6) described these experiences positively. An example included groups providing opportunities to interact with people from different ‘walks of life’. Eight participants highlighted the impact that differences or similarities in levels of function or impairment could have on experiences, reflected in the code ‘group participant mix’.

Connectedness was described positively and reflected in the codes of support (n=10), working together (n=9) and interaction (n=6). Six participants described how group interactions assisted with feelings of isolation including, “You don’t feel so alone. ...It just makes you feel a bit more comfortable.” (P44). This was exemplified by how interactions in the groups “spilled over” into relationships on the ward. While only three participants explicitly described this, they spoke in detail about the impact of this experience. For example, one participant highlighted, “... is also beneficial for just life in the unit... any of those situations where you are actually doing something

with other in-mates... it's easier to ah, sit down over a cup of tea at a later time and ah, um carry on a conversation, you've got, you've got something in common already... those sort of activities are good for the whole um atmosphere within the unit." (P30).

Feeling normal and comfortable was reflected in the codes of satisfaction (n=11), roles (n=9), reassurance – I am me (n=6), and familiarity with aspects of the group including group processes (n=6). Participants referred to roles both in the sense of groups providing opportunities to participate activities relevant to their pre-injury life roles as well as roles they took on in the groups. Opportunities to observe and become familiar with processes were seen as positive and highlighted by six participants. For example, "in my first group one but that was good because I got to see, and for the next one I just jumped in straight in to cooking and got everything" (P25). Another participant said, "I felt comfortable in the group." (P46).

### ***Learning by doing, seeing and sharing***

Learning was described as learning about themselves and their abilities following TBI which occurred in three key ways; by doing, by seeing and by sharing.

The importance of groups meeting individual needs and goals was highlighted by eleven participants. These perceptions were largely positive, and summarised by participant 21, "...mostly they were done at a level to meet my needs or everybody's needs, but yeah sometimes they could have been a little bit more specific maybe".

Another participant described how facilitators knew their goals and individualised

activities, “most of it was tailored towards an individual person... so, each person that you had to talk to had your goals in their hand and set up activities to reflect your goals” (P36). Of the fourteen participants who discussed goals, thirteen reported that the groups met their goals. The importance of knowing their goals was emphasised by participant 32, “Just talking about what our goals are, what we want to do...It was very helpful” (P32). Nine participants described opportunities that groups provided for them to see how they were improving, “I am able to see where I am at” (P44).

In the context of learning by doing, twelve participants described opportunities that groups provided to practise skills and activities, and nine participants discussed opportunities to participate in life roles. Thirteen participants highlighted that they felt more prepared for the real world following group participation. Participants linked the doing of activities with confidence in their own skills and preparation for the ‘real world’. For example, “Just those tasks that you haven’t done for a while... a lot of them are routine um, its, it’s just good to have that situation where you are, its comes back, and you, it’s like riding a, you, you realise it’s like riding a bike.” (P30).

Opportunities to observe other patients completing activities was perceived as positive with seven participants describing how this assisted with their learning and adjustment (reflected by the code group activities – learning). For example, “...after I had cog [cognitive] group the lady was talking to a bloke that got released a bit earlier than I did and writing diaries and everything you do. So, I started doing that and then I could tell my mum and dad about at the end of the day” (P25).

Sharing of information and experiences was highlighted in a number of codes including support (n=10), and socialising external to the group (n=3). This was described as different from sharing with staff, “everybody kind of shares their stories and, you know, helps each other. ...In a way that’s different to what you get from the doctors and nurses, and everyone else.” (P44). This socialising and support occurred both formally in group discussions and activities, and informally during conversations outside of groups. The importance of this informal support was highlighted by one participant, “don’t underestimate the weight-the value of that spilling back into your living environment in BIRU because that’s even greater...” (P39).

Participants discussed that groups reassured them, providing opportunities to develop confidence in their skills (n=7), ‘see’ improvements (n=9), and prepare them for discharge into the “real world” (n=13). One participant explained, “because you have had a brain injury... You are kind of unsure all the time. So, when you do the group things, and you get things right, it gives you your confidence back. And I feel like that’s really important.” (P44). The importance of confidence was described as, “... I am feeling more confident... every day I am improving... that confidence and that, you know is really important....” (P39).

### **Practicalities of groups and recommendations**

Participants highlighted a number of practicalities relating to group participation, and these were reflected in codes including group activities (n=15), perceived need for

the group (n=11), and impact of cognitive communication changes (n=9). Refer to Table 2 for a full list of relevant codes.

The activities completed in groups were discussed by all participants and reflected in codes including; group activities (n=15), group activities – challenge level (n=8), and group activities – challenges (n=6). This generally comprised of descriptions of the activities and references to how they may have challenged individuals or groups for example, “I mean, for some people it [reference to meal preparation tasks] might be a challenge.” (P37). Three of the eleven participants who discussed the perceived need for group participation voiced concerns, for example, “they were kind of challenging for me in the sense... I didn’t quite know why I was in the cooking group...Because A, I knew how to cook...”, emphasising that “... making sure that people know why they’re here and doing things” (P43) was important for motivation and engagement in the group.

Attributes of facilitators were raised by ten participants. Overwhelmingly these descriptions were positive, for example, “they are very patient, and personable...” (P43). Other participants explained how the facilitators encouraged them, “bit of encouragement... you know confirmation that you know that was probably the right thing, or you did do things in the right order there.” (P33). The importance of the facilitator’s role at the beginning of groups was emphasised, “the first five minutes of those sessions is critical in that the facilitator, if they can um kind of, get involved to ensure that the group dynamics get off the ground in the best way possible...” (P39).

Ten participants identified practical recommendations for groups, including the importance of introductions. One participant described arriving at a group, “and there’s this random person kind of sitting on the side, and we’re like ‘ok’, and what are they doing? So, it’s about introducing that person the same as the rest of the group...” (P19). Having appropriate equipment and set up to facilitate participation was raised, with wheelchair accessibility being an example. Other practical recommendations included: facilitators getting to know participants, increasing group frequency, and provision of information about group processes.

Participants (n=8) described that the mix of group participants could impact significantly on experiences of group participation and feeling comfortable. Nine participants discussed the impact cognitive communication changes could have on group experiences. Participant 19 described, “...just making sure that the people sitting in a group, at a table, are kind of at the same level... if you have someone that has, you know, quite a, um, intense disability compared to someone that’s almost ready...it kind of doesn’t work...”. In these discussions, participants emphasised the importance of selection, and “choosing the right people” for groups (P21). Whilst the majority of participants emphasised the importance of group participants being at similar levels, two participants highlighted benefits of seeing others at different stages of recovery for facilitating hope and providing opportunities to help others. For example, “It’d be good say if there’s more um, people who are, do it easier than me, like, I can push myself to go as far as them... And say if there’s people who aren’t as good as me I can, like help them...” (P46).

#### **4. Discussion and Conclusion**



#### 4.1 Discussion

This study explored the perceptions of people with TBI about their participation in inpatient occupational therapy rehabilitation groups. Three themes emerged: feeling normal, comfortable and connected; learning by doing, seeing and sharing and; practicalities of groups and recommendations. Participants described how groups facilitated a sense of normality and provided comfortable opportunities for social interaction and support. Learning in the group environment occurred by doing activities, observing peers, and sharing information and experiences. Practical issues such as the group activities themselves and facilitator skills, as well as recommendations for practice were described by participants.

Currently there is a paucity of research that provides in-depth evidence about patient perceptions of participation in TBI groups. Existing research is largely focused in the outpatient community setting [21]. The findings from this study shed light on perspectives of patients about the inpatient setting. Themes emerging from this study are largely consistent with existing research from patient perspectives. This includes that groups can provide opportunities for sharing of experiences which assists with adjustment and reduces feelings of isolation [38-43], that groups can provide opportunities for learning from peers and helping each other [38,40-45], and that groups facilitate socialisation [38,40,41]. The three themes emerging from this study were also largely consistent with research investigating TBI rehabilitation groups from the perspective of clinicians [46-49]. This study's findings about the value of opportunities for normalisation and adjustment post-injury, and peer support

are consistent with groups literature more broadly, and with other health conditions [3,9,50].

The perceived importance of the mix of participants in groups and patient selection is consistent with existing groups literature [50,51]. Whilst the majority of participants in this study identified that similar levels of function between group members was important for positive group dynamics and experiences, two participants highlighted the benefit of seeing the hope and the road of recovery ahead, as well as opportunities to help others who were not functioning as well as themselves. Participants also described positive experiences with diversity within groups including, interacting with people from different vocational or cultural backgrounds. These finding highlights that there are both pros and cons to having groups with participants at mixed levels of functioning and has implications for the planning of TBI rehabilitation groups to maximise positive group experiences.

Consistent with principles of client centred practice [52,53], consideration of individuals' needs and goals, as well as their perceived need for participation in the group emerged strongly. This also has implications for clinical practice, in ensuring that group participants are aware of their goals and see the relevance of group activities in meeting their needs and goals, thereby reinforcing the need for participation in therapy groups. Implications for group facilitation also emerged in terms of balancing individual needs with the benefits of peer interactions, and balancing the benefits of diversity with patient concerns about the impact of differing functional levels between group participants.

Interestingly, this study revealed the impact that connections formed in groups can have on broader rehabilitation experiences. In particular, the importance of the continuity of relationships developed within groups, and the 'shared experience' between group participants. Participants not only described the positive experiences of group interactions, but also the positive impact this had on development of relationships with peers outside of the groups, within the inpatient ward environment. Social isolation and adjustment are significant issues following TBI [3,38,40,41], and the finding that groups contribute to the development of relationships outside of the group provides support for the use of groups even in the early stages of inpatient rehabilitation.

This study was conducted at a single site with a small sample ( $N=15$ ), and within a single discipline. The groups were open groups and this may have impacted on group experiences [54], compared with closed groups. The participants were in an inpatient rehabilitation program, whereas much of the previous research relating to groups has been conducted in outpatient and community settings [21]. The setting and stage of recovery may impact on the themes that emerged, and the findings of this study may not be able to be generalised to other settings and population groups.

The groups within this study were 'activity groups' where participants were doing daily activities and tasks based on individual goals [26], as compared to support or education groups. The concept of 'real world' preparation emerged strongly within this study, and it would be interesting to investigate whether other types of groups that may not focus on doing and practicing activities also facilitate real world preparation. Further investigation is warranted into what components are most

important in groups for creating the sense of normality described by participants - the 'doing' of daily activities, the support provided by peers, or a combination of both.

## **4.2 Conclusion**

From the perspectives of patients, groups can facilitate a sense of normalcy and can provide a comfortable environment for learning to occur. Key considerations for facilitation of groups from patient perspectives include the mix and diversity of group participants, and meeting individual needs within groups. The views of patients in this study about participation in groups were generally positive, and so a consumer-focused approach to health care would support the use of occupational therapy groups in TBI rehabilitation.

## **4.3 Practice implications**

Whilst it can be challenging to engage people with TBI in qualitative research because of the resulting disability [32,33], it is essential researchers invest in this engagement given the importance of consumer feedback. This study has shown it is possible to get rich and insightful information, even in the early stages of recovery using evidence-based strategies [32,33].

Some groups are designed to provide education and this occurs in the form of presentations and discussions, including about health conditions and strategies for managing conditions [1]. Education can also be delivered more informally while participants are participating in activities and such is the case with the groups in this study. Key recommendations for group facilitation from the perspectives of patient participants have been discussed.

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**Declaration of Interest**

The authors declare no conflicts of interest.

I confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

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## References

1. Drum D, Swanbrow Becker M, Hess E. Expanding the application of group interventions: emergence of groups in health care settings. *The Journal for Specialists in Group Work* 2011;36(4):247-263.
2. Bertisch H, Rath JF, Langenbahn DM, Sherr RL, Diller L. Group treatment in acquired brain injury rehabilitation. *The Journal for Specialists in Group Work* 2011;36(4):264-277.
3. von Mensenkampff B, Ward M, Kelly G, Cadogan S, Fawsit F, Lowe N. The value of normalization: Group therapy for individuals with brain injury. *Brain Injury* 2015;29(11):1292-9.
4. Falk-Kessler J, Momich C, Perel S. Therapeutic Factors in Occupational Therapy Groups. *American Journal of Occupational Therapy* 1994;45(1):59-66.
5. Hassett LM, Moseley AM, Whiteside B, Barry S, Jones T. Circuit class therapy can provide a fitness training stimulus for adults with severe traumatic brain injury: a randomised trial within an observational study. *J Physiother* 2012;58(2):105-112.
6. Appleton S, Browne A, Ciccone N, Fong K, Hankey G, Lund M, Miles A, Wainstein C, Zach J, Yee Y. A multidisciplinary social communication and coping skills group intervention for adults with acquired brain injury (ABI): A pilot feasibility study in an inpatient setting. *Brain Impairment* 2011;12(3):210-222.
7. Higgins S, Schwartzberg S, Bedell G, Duncombe L. Current practice and perceptions of group work in occupational therapy. *Group* 2014;38(4):317-333.

8. Hammond FM, Barrett R, Dijkers MP, Zanca JM, Horn SD, Smout RJ, Guerrier T, Hauser E, Dunning MR. Group Therapy Use and Its Impact on the Outcomes of Inpatient Rehabilitation After Traumatic Brain Injury: Data From Traumatic Brain Injury-Practice Based Evidence Project. *Archives of Physical Medicine and Rehabilitation* 2015;96(8 Suppl):S282-92 e5.
9. Malec JF. Comprehensive brain injury rehabilitation in post-hospital treatment setting In: Sherer M, Sander A, editors. *Handbook on the Neuropsychology of Traumatic Brain Injury*. New York: NY: Springer; 2014. p 283-307.
10. Access Economics. The economic cost of spinal cord injury and traumatic brain injury in Australia. In: Initiative TVN, editor. *Australia2009*.
11. Centres for Disease Control and Prevention. Report to Congress on Traumatic Brain Injury in the United States: Epidemiology and Rehabilitation. . In: Prevention. NCfIPaCDoUI, editor. *Atlanta2014*.
12. Hyder AA, Wunderlich CA, Puvanachandra P, Gururaj G, Kobusingye OC. The impact of traumatic brain injuries: a global perspective. *NeuroRehabilitation* 2007;22(5):341-353.
13. Colantonio A, Ratcliff G, Chase S, Kelsey S, Escobar M, Vernich L. Long-term outcomes after moderate to severe traumatic brain injury. *Disabil Rehabil* 2004;26(5):253-61.
14. Pagan E, Ownsworth T, McDonald S, Fleming J, Honan C, Togher L. A Survey of Multidisciplinary Clinicians Working in Rehabilitation for People with Traumatic Brain Injury. *Brain Impairment* 2015;16(3):173-195.
15. Brasure M, Lamberty GJ, Sayer NA, Nelson NW, Ouellette J, Butler ME, Wilt TJ. Multidisciplinary Rehabilitation Programs for Moderate to Severe Traumatic Brain Injury in Adults: Future Research Needs. *Future Research*

- Needs Paper No. 36. . In: Quality. AfHRa, editor. Rockville, MD. : Agency for Healthcare Research and Quality.; 2013.
16. Bayley MT, Tate R, Douglas JM, Turkstra LS, Ponsford J, Stergiou-Kita M, Kua A, Bragge P, Panel IE. INCOG guidelines for cognitive rehabilitation following traumatic brain injury: methods and overview. *J Head Trauma Rehabil* 2014;29(4):290-306.
  17. Sarrami Foroushani P, Travaglia J, Eikli M, Braithwaite J. Consumer and community engagement: a review of the literature. Sydney: Centre for Clinical Governance Research, Australian Institute of Health Innovation, Faculty of Medicine, University of New South Wales, and the Agency for Clinical Innovation, New South Wales.; 2012.
  18. World Health Organisation. Declaration of Alma Ata: Report of the International Conference on Primary Health Care. Geneva: World Health Organisation; 1978.
  19. Health Consumers Queensland. Information paper: Consumer and community engagement and patient involvement and participation in health services planning, delivery and evaluation. Brisbane: Queensland Government; 2009.
  20. Gregory J. Engaging consumers in discussions about Australian health policy: Key themes emerging from the AIHPS study: Discussion paper for the AIHPS national citizen engagement forum. Melbourne: Australian Institute of Health Policy Studies; 2008.
  21. Patterson F, Fleming J, Doig E. Group-based delivery of interventions in traumatic brain injury rehabilitation: a scoping review. *Disability and Rehabilitation* 2016;38(20):1961-1986,.



22. Nilsson C, Bartfai A, Lofgren M. Holistic group rehabilitation - a short cut to adaptation to the new life after mild acquired brain injury. *Disabil Rehabil* 2011;33(12):969-78.
23. Schwartzberg S. Helping factors in a peer-developed support group for persons with head injury, part 1: participant observer perspective. *Am J Occup Ther* 1994;48(4):297-304.
24. Straits-Troster K, Gierisch JM, Strauss JL, Dyck DG, Dixon LB, Norell D, Perlick DA. Multifamily group treatment for veterans with traumatic brain injury: what is the value to participants? *Psychiatr Serv* 2013;64(6):541-546.
25. Lexell EM, Alkhed AK, Olsson K. The group rehabilitation helped me adjust to a new life: experiences shared by persons with an acquired brain injury. *Brain Injury* 2013;27(5):529-37.
26. Patterson F, Fleming J, Doig E, Griffin J. Participant evaluation of an inpatient occupational therapy groups programme in brain injury rehabilitation. *Aust Occup Ther J* 2017;64(5):408-418.
27. Liamputtong P, Ezzy D. *Qualitative Research Methods*. Melbourne: Oxford University Press; 2005.
28. DiCicco-Bloom B, Crabtree BF. The qualitative research interview. *Med Educ* 2006;40(4):314-21.
29. Palinkas LA, Horwitz SM, Green CA, Wisdom JP, Duan N, Hoagwood K. Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Adm Policy Ment Health* 2015;42(5):533-44.
30. Patton M. *Qualitative research and evaluation methods*. . Thousand Oaks, CA: 3rd Sage Publications; 2002.

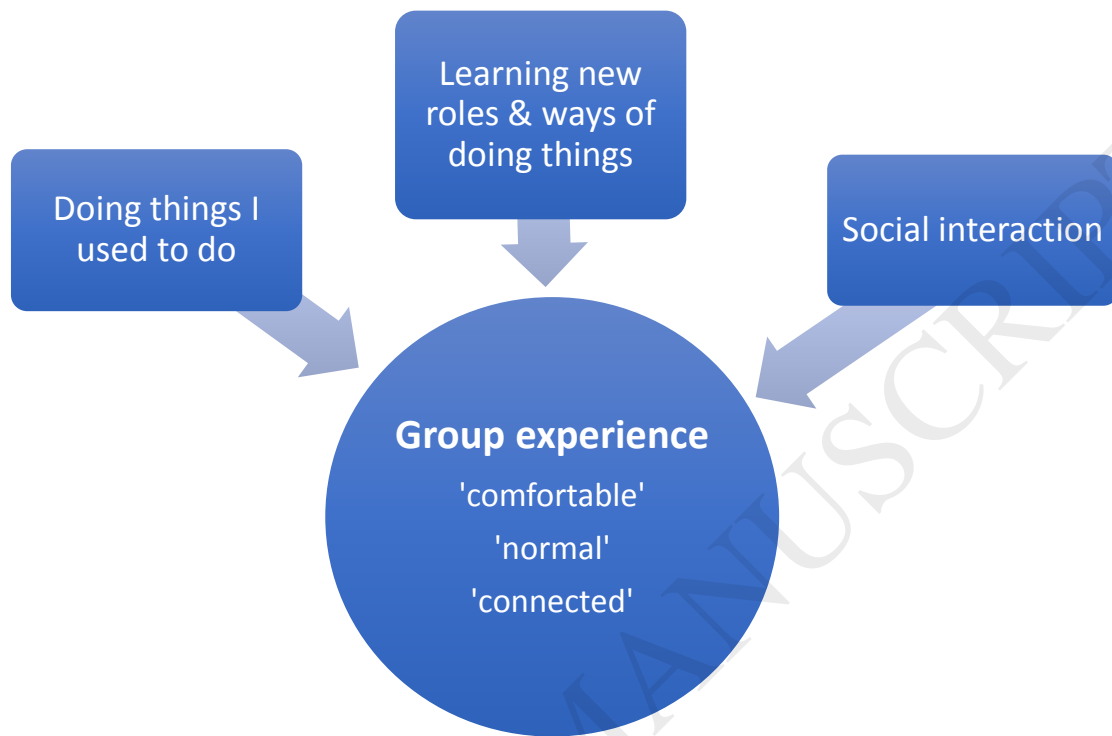
31. Greenwood A, Theadom A, Kersten P, McPherson KM. Exploring researchers' experiences of working with people with acquired brain injury. *Brain Inj* 2015;29(5):592-600.
32. Paterson B, Scott-Findlay S. Critical Issues in Interviewing People with Traumatic Brain Injury. *Qual Health Res* 2002;12(3):399-409.
33. Carlsson E, Paterson BL, Scott-Findlay S, Ehnfors M, Ehrenberg A. Methodological issues in interviews involving people with communication impairments after acquired brain damage. *Qualitative Health Research* 2007;17(10):1361-1371.
34. Poland BD. Transcription quality as an aspect of rigor in qualitative research. *Qualitative Inquiry* 1995;1(3):290-310.
35. Graneheim UH, Lundman B. Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nursing Education Today* 2004;24:105-112.
36. Elo S, Kyngas H. The qualitative content analysis process. *J Adv Nurs* 2008;62(1):107-15.
37. Lincoln YS, Guba EG. *Naturalistic Inquiry*. Newbury Park, CA: Sage Publications.; 1985.
38. Charles N, Butera-Prinzi F, Perlesz A. Families living with acquired brain injury: a multiple family group experience. *NeuroRehabilitation* 2007;22(1):61-76.
39. Fleming J, Kuipers P, Foster M, Smith S, Doig E. Evaluation of an outpatient, peer group intervention for people with acquired brain injury based on the ICF 'Environment' dimension. *Disabil Rehabil* 2009;31(20):1666-75.

40. Fraas M, Balz M, Degrauw W. Meeting the long-term needs of adults with acquired brain injury through community-based programming. *Brain Inj* 2007;21(12):1267-81.
41. Lundqvist A, Linnros H, Orlenius H, Samuelsson K. Improved self-awareness and coping strategies for patients with acquired brain injury--a group therapy programme. *Brain Inj* 2010;24(6):823-32.
42. Rodgers ML, Strode AD, Norell DM, Short RA, Dyck DG, Becker B. Adapting multiple-family group treatment for brain and spinal cord injury intervention development and preliminary outcomes. *Am J Phys Med Rehabil* 2007;86(6):482-92.
43. Thomas M. The potential unlimited programme: an outdoor experiential education and group work approach that facilitates adjustment to brain injury. *Brain Inj* 2004;18(12):1271-1286.
44. Fleming J, Kuipers P, Foster M, Smith S, Doig E. Evaluation of an outpatient, peer group intervention for people with acquired brain injury based on the ICF 'Environment' dimension. *Disability and Rehabilitation* 2009;31(20):1666-75.
45. Schulz CH. Helping factors in a peer-developed support group for persons with head injury, part 2: survivor interview perspective. *Am J Occup Ther* 1994;48(4):305-9.
46. Smalley V, Brannick S, Coates R. Psycho-education and support group for people with severe brain injury. *Clin Psychol Forum* 2007;172(April):23-26.
47. Knis-Matthews L, Dahan-Barasch S, Jablonski LM, Schulgasser FA, Whitfield K. Facets of community-based group outings for individuals with brain injury: perceptions of four therapists from difference disciplines. *Am J Rec Ther* 2006;Winter:18-26.

48. Richard L, Jakobov N, Sosowsky BB, Leiser M. The use of groups as a therapeutic modality with individuals who are brain injured. *Am J Rec Ther* 2008;7(2):9-16.
49. Patterson F, Fleming J, Doig E. Clinician perceptions about inpatient occupational therapy groups in traumatic brain injury rehabilitation *Brain Injury* 2017;31(8):1077-1087.
50. Yalom ID, Leszcz M. *The theory and practice of group psychotherapy*. New York: NY: Basic Books; 2005.
51. Fuller P. Matching clients to group therapies. *Journal of Psychosocial Nursing* 2013;51(5):22-27.
52. Law M, Baptiste S, Mills J. Client-centred practice: what does it mean and does it make a difference? *Canadian Journal of Occupational Therapy* 1995;62(5):250-257.
53. Wilkins S, Pollock N, Rochon S, Law M. [OB] Implementing client-centred practice: Why is it so difficult to do? *Canadian Journal of Occupational Therapy* 2001;68(2):70-79.
54. Schwartzberg SL, Howe MC, Barnes MA. *Groups: Applying the Functional Group Model*. Philadelphia: F.A. Davis Company; 2008.
55. Duncombe L, Howe M. Group treatment: goals, tasks, and economic implications. *American Journal of Occupational Therapy* 1995;49(3):199-205.
56. McCarthy CJ, Hart S. Designing groups to meet evolving challenges in health care settings. *The Journal for Specialists in Group Work* 2011;36(4):352-367.

Figure

Figure 1: Factors contributing to feeling normal, comfortable and connected



## Tables

Table 1: Interview guide

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### Interview guide - questions

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*Note these questions will be used as a general guide for the interview to facilitate discussions.*

Tell me about the groups you have attended in occupational therapy?

What types of groups have you participated in, in Occupational Therapy during your admission?

- If not able to identify... provide prompts: meal preparation/cooking, community access (planning & shopping), upper limb, cognition, workshop.

What was good about the groups?

What didn't you like about the groups?

Guide for prompting/probing as necessary

- Tell me about the ..... group.
- Did you like that?
- Why did you like it?
- Did you enjoy doing..... with other people in the group?
- What didn't you like about that group?
- Why didn't you like .....?

Do you feel the group met your goals?

What recommendations do you have for the therapists to improve groups in OT?

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Table 2: Themes, codes and frequency

Themes	Codes	Frequency
Feeling normal, comfortable and connected	Satisfaction	11
	Support	10
	Working together	9
	Roles	9
	Group participant mix	8
	Diversity	7
	Enjoyment	6
	Familiarity - Processes	6
	Interaction	6
	Reassurance – I am me	6
	Fun	5
	Familiarity - People	4
	Familiarity - Environment	3
	Socialising external to the group	3
	Atmosphere	3
Learning by doing, seeing and sharing	Goals	14
	Real world preparation	13
	Practise	12
	Individual needs	11
	Support	10
	Roles	9
	Perceived improvements	9
	Confidence in own skills	7
	Group activities - learning	7
	Reassurance – I am me	6
	Practicalities of groups and recommendations	Group activities
Perceived need for the group		11
Facilitators		10
Recommendations		10
Impact of cognitive/ communication changes		9
Group activities – Challenge level		8
Group participant mix		8
Group activities - Challenges		6
Group activities - Motivating		4
Family participation		3
Flexibility versus structure		3
Resources and equipment		2

	Feedback	1
	Group activities – Enough time	1

ACCEPTED MANUSCRIPT