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A protocol for establishing and evaluating a public and patient multi-stakeholder panel for organisation science and management principles in healthcare

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TITLE PAGE

Title A protocol for establishing and evaluating a public and patient multi-stakeholder panel for organisation science and management principles in healthcare

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ABSTRACT

Introduction:
Patient, public involvement has not been utilised to its full potential when examining the organisational science and management principles side of healthcare. With more and more acknowledgment of the relationship between management tools and patient outcomes, having meaningful engagement with the patient and the public in conducting research with the potential to enhance the patient experience, has never been more important. This study aims to outline the process in establishing a PPI for the organisational science and management principles side of healthcare, as well as evaluate the process providing guidelines for future PPI establishments in the field. In addition, it aims to produce a charter for the panel, by and with the panel members, ensuring they are involved at every stage of research.

Methods and Analysis:
An adaptation of a hybrid of both a priority-setting and partnership approach to PPI will provide guidance on identifying, recruiting and establishing a PPI for research on the organisational science and management principles in healthcare. A World Café approach to panel workshops will be adopted in order to produce a charter for the group. In addition, it is proposed that evaluation of panel engagement will be conducted through analysis of records of the meetings/workshops, as well as one-to-one interviews with all panel members at key points in time. The final plan for evaluation will be agreed with all members of the PPI panel. Data will be transcribed and managed using NVivo. It will be analysed through a thematic analysis.

Ethics and Dissemination:
Ethical approval for the evaluation of the PPI has been received from the Kemmy Business School's Ethics Committee. Papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the evaluation of the panel's engagement will be published in journals.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- This study will contribute to future research in the area of organisational science and management principles in healthcare by outlining the process for establishing a PPI panel for further research in the field.
- In setting up an initial PPI panel for this type of research, it has the potential to become a much larger group with a national level panel.
- The process in this study takes every step to ensure that there is true partnership in the research conducted with the PPI panel, involving them in research priority setting, design, data collection and dissemination.

Introduction

The impact of organisational science and management principles on the patient in healthcare is something that has been receiving recent attention in the literature. Organisational science research focuses on the study of individual, group and organisational behaviour, while management principles look at factors that impact said behaviour. When combined, sample topics of focus include, leadership, job design, culture, control and power, performance,

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motivation, training and so on.[1] While the industry is comprised of a complex mix of management practices, with the ultimate focus being on patient outcomes, Mayo et al (2021) argue it is more important now than ever before to look at organisational science research and see how the management of healthcare can be improved due to the impending additional challenges brought on by the Covid-19 pandemic.[2] On evaluation of the healthcare system in the US, the Institute of Medicine (2001) highlighted that the outcomes of a fragmented, complex system include unnecessary duplication of services and long waiting times.[3] The report highlights the 'disturbing absence' of progress towards improving the system despite the negative outcomes. Organisational science and management principles present important considerations in any industry, however, in healthcare, the consequences of poor practices in these areas are acutely felt not only by the organisation or the employee, but by the patient. In healthcare, Lyubovnikova and colleagues have shown through research a statistical and practical significant relationship between patient mortality and the use of management tools. [4] Furthermore, Edmondson et al (2016) highlight that the healthcare profession is one of 'high stakes' facing a significant level of uncertainty in delivering care to patients, yet there are significant variations in psychological safety among groups within the sector.[5] In order to deliver good quality care to the patient, Kohn et al (2000) argue that safe organisational systems need to be designed. They highlight that this would mean that systems take account of employee psychological limits focusing on job design, operational procedures, work schedules, training, workload management and so on.[6]

Taking Ireland as a case study, the healthcare system continues to struggle to deliver an efficient, safe, patient- focused service in line with Ireland's economic ranking in the world.[7] At the most fundamental level it is irrefutable that there is no health services without a health workforce, however, research on healthcare in high-income countries such as Ireland has highlighted the growing unmet demand for healthcare workers.[8] Ireland's inability to achieve a sustainable workforce has, for example, resulted in a deficit of over 1,600 hospital consultants.[9] One such problem identified is doctor emigration, where despite a significant increase in the number of doctors graduating in Ireland, they continue to emigrate.[10] In literature examining what factors are contributing to such high levels of doctor emigration, it emerged that issues were largely to do with principles in the realm of the organisational science and managerial practices side of healthcare. These factors included poor experiences with supervision, training and staffing levels, in addition to stressful working conditions and worsening mentoring experiences.[11] As highlighted previously by Kohn et al (2000), the impact of these poor organisational science and management practices is felt by the patient.[6] With that in mind, this study proposes the establishment of a public, patient involvement (PPI) group to further enhance research around organisational science and management practices in the Irish healthcare system, with a view to the improvement of practices and patient care.

Public and patient involvement in healthcare research has been increasingly important internationally for some time.[12] While it has been dated back to the 1970's, more recently there is a growing awareness of the benefits of PPI in research.[13] There is acknowledgment when organised correctly PPI can lead to meaningful engagement with participants being true partners in the design of the research process.[14] Furthermore, Braithwaite (2018) highlight that improving patient and public involvement in research is a high priority from multiple stakeholder perspectives such as policymakers, research funders, some academic journals as well as patient and lay organizations.[15] One of the more commonly cited frameworks of principles for guiding PPI's in that of INVOLVE. [16,12] The framework describes the public to include a rich diversity of people, whether defined by age, colour, race, ethnicity or nationality, disability, gender or sexuality, who may have different needs and concerns. It describes the

word involvement as doing research 'with' or 'by' the public.[17] Meaning the public should be involved in identifying the research objectives and methods of the group.

While the majority of literature on PPI's focuses on its use in clinical research, there is some information available on its use in health economics research,[16] and health policy research.[18,19] In one study focused on PPI in health economics it is argues that while it is used in some instances, there are some barriers to it reaching its full objectives, such as a tokenistic attitude of some researchers, limited resources and skills to engage fully with it and lack of commitment from the PPI contributors.[16] Tokenism, rather than true public involvement was also referred to as an issue in health policy research and the use of PPI's in addition to issues around redistribution of power and role ambiguity.[18] Despite the barriers, research does cite support for public involvement in policy research.[19] When it comes to reasons why the public are included in healthcare policy decisions, Wiseman (2005) argues that where healthcare systems are funded by the tax payer, the public deserve to have a say in decisions. Furthermore, involving the public in decisions can help counter potential biases among the key decision-making health professionals.[20] While it is clear that PPI in research is not without challenges, ensuring the group is diverse, having clear roles and expectations, strong communication and ensuring the participation is from the beginning, will help address these issues.[13] Furthermore, the importance of appropriate evaluation of the participant engagement will enable improvements to the ways in which the PPI operates, leading to better impact.[18]

The involvement of the patient in healthcare research in a 'with' and 'by' manner can potentially lead to the improvement in the credibility of results and can impact the applicability of the results to patients.[21] In light of this and keeping the patient experience to the fore this study sets out a protocol to establish a PPI for organisational science and management principles research and evaluate its outcomes. While PPI is documented in health economics and health policy research, to the awareness of the authors, there are currently no existing PPI groups that focus on the impact of organisational science and management principles in healthcare on patient outcomes. This research, by researching the underlying issues in organizational science and management principles, will provide a less researched dimension of the potential to impact on patent care outcomes. These insights when reviewed in parallel with the clinical PPI research studies will present a more holistic systems perspective of the alignment/disconnect and thus serve to provide solutions which better understand broader system wise issues around the stagnation and pose insights into how a more holistic perspective. Recording the establishment of this PPI in this area will inform other researchers in business schools how PPI will enhance their research and the describe the process on how to go about it for non-clinical research projects aimed at healthcare settings. We hope to achieve this through the involvement of the public and patients in guiding research on the organisational and management science of healthcare that has the potential to have a real impact to the patient, for example, reduced waiting lists.

This study aims to:

- Describe the process of establishing a public and patient multi-stakeholder panel to meaningfully engage with the research team on organisational science and management principles in healthcare
- Produce a charter for the panel outlining the terms of reference of participants involvement, setting out a research agenda to facilitate the design of interventions that will improve business processes in healthcare settings
- Evaluate the impact of the research engagement on all of the panel participants

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Methods and analysis

This study will be conducted by a research team in the Business School at the authors institution. The team represents faculty members and researchers from a range of interdisciplinary backgrounds, including management, leadership, organisational behaviour, strategy, eHealth, innovation/entrepreneurship, digitization of healthcare, economics, work and employment practices and public health. The study will begin in March 2022, and it is expected to last two years. The aims of the research team are as follows:

- To co-produce and share knowledge that will inform policies and practices at an organisational science and management principles level in healthcare settings
- To build a stronger community that bridges the public and patient with researchers and healthcare professionals
- To increase leadership knowledge, skills and competencies of healthcare professionals

This data for this study will be collected through a qualitative participatory approach.[21] In order to engage in a rigorous process, the consolidated criteria for reporting qualitative research (COREQ) will be used to guide both the data collection and analysis of this study.[22] In addition, when reporting the findings of this study the standardised guidelines set out by the Guidance for Reporting Involvement of Patients and the Public (GRIPP2) will be implemented.[23] With this in mind a framework has been chosen to guide the selection of patients and the public for the panel, emphasising the importance of minimising the barriers in the running of PPI's discussed earlier.

Patient and Public Involvement Statement

The very purpose of this study is to evaluate the establishment and engagement of patient and public involvement (PPI) in research related to organisational science and management principles in healthcare settings. The following sections outline how it is proposed to recruit and engage PPI panel members.

Framework

According to Greenhalgh et al. (2019) from a systematic review of PPI frameworks found that frameworks developed for one research issue or context did not appear to be readily transferable to other situations, except when they have been oriented to a specific clinical field and actively disseminated within that field. Thus, for this research we adopt the characteristics of two frameworks, namely; the priority setting and partnership frameworks.[24] Given that a majority of PPI frameworks have been designed with clinical studies in mind, choosing a hybrid of multiple frameworks and adding in points which are pertinent to the organisational and management principles areas of investigation is warranted.

As mentioned previously, the involvement of patients and members of the public in research focused on organisational science and management principles in novel. Therefore, it is expected that not only will this panel help with identifying and prioritising research needs in the area, but also be a partner in research design, data collection and dissemination of the findings. Initially, the formation of the panel will follow the steps outlined by Lomas et al. (2003), however, will continue beyond validating research priorities to being conducted 'with and by' the collaborative group.[25] From the formation of the panel to the dissemination of findings, the INVOLVE (2016) principles will be adopted. Figure 1 illustrates our approach to establishing this PPI group.[26]

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[Insert Figure 1]

Identifying Stakeholders

Due to the fact that the research focuses on organisational science and management principles, recruiting patients for the panel may prove challenging. Hence, the research team needs to be mindful in its recruitment efforts to inform potential participants how patient experiences such as waiting times, can be linked to management principles. Through extensive discussions, the research team has set parameters as to the types of people who should be recruited for this panel;

1. Patients with experience of the Irish healthcare system over the last three years
2. Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system of the last three years.

Purposive and snowball sampling will be the approach used to form the panel.[21] The research team will appeal for people who meet the criteria for participation by reaching out to existing contacts between the team. Contacts in the Patient Advocacy Liaison Service (PALS) at the local hospital group, as well as the Business School's alumni will be consulted in refining the recruitment strategy. In keeping in mind INVOLVE (2016) principles and ensuring our research works to include some of Irelands Sustainable Development Goals (SDGs), we aim to open the opportunity to engage in the PPI to people from all socio-economic backgrounds and across all of the nine-grounds outlined in the Equal Status Acts 2000-2018.[26-28] We will use the following strategies for recruiting members for the PPI:

1. Design of a recruitment flyer for distribution through the Business School's alumni data base and for placing on notice boards in waiting rooms around the hospitals in the hospital group.
2. Establish new and build on existing relationships with the networks of the research team, identifying gatekeepers and community leaders in relevant networks.
3. Run a social media campaign on Twitter, LinkedIn and Facebook, highlighting the purpose of the PPI and providing details for expressions of interest.

Once expressions of interest are received, one of the research team will meet with prospective participants to discuss further information about the PPI and any queries they might have. Information on health conditions will not be sought from panel members. Engagement with participants will be guided by INVOLVE principles. The principles will also guide decisions on whether those who have expressed interest will be suitable or not. For example, ensuring that panel members are willing to engage in a transparent, respectful process, maximising collaboration through realising the values other panel members' contributions. We plan to recruit 6-8 patients and 6-8 members of the public, as well as involve at least one member of faculty from each of the four departments in the Business School (Management and Marketing, Economics, Accounting and Finance, and Work and Employment Studies). Figure 2 provides an overview of our stakeholder identification and recruitment approach.

Panel Involvement

Due to the originality of the focus of this PPI, specific guidelines to panel involvement in PPI's relating to organisational science and management principles are not available. Therefore, the guidelines outlined by INVOLVE (2016) will guide the approach to panel involvement for this PPI.[26] Considerations include:

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- Panel members' skills, knowledge and experience will be respected and contributions to the research will be recognised
- Panel members will be included as key partners of research and will be involved from the outset
- Panel members will have access to learning and development to support their involvement in research
- Researchers will provide clear information to panel members about their role and their input
- Panel members and researchers contribute to collaborative decision making
- Panel members will commit to their involvement in research and will be willing to contribute to the research
- Panel members and researchers understand and sign up to the principles of equality, diversity and inclusion
- Information will be presented in accessible and alternative formats and written in plain English
- Researchers will be accountable to public members involved in the research

[Insert figure 2]

Panel Workshops

The PPI panel will meet four times a year, beginning in January 2022. Workshop style meetings following the principles of a World Café.[14] The purpose of the workshops, as discussed previously, is to design research priorities, as well as engage in the research design, data collection and dissemination. For the initial meeting, rapport building will be an important feature. This will be followed by the research team setting the context and explaining the principles of the World Café. Role clarifications will be a key focus of the first workshop. Each workshop is expected to last approximately two hours in duration. While it is hoped to hold the meeting face to face, given uncertainties in the context of Covid-19, workshops may have to be held virtually. In the event of virtual workshops, the research team will contact all of the panel members individually to ensure that they have access to the virtual platform and are comfortable with using it. By the end of the third workshop it is expected that the second research aim will have been achieved, with a charter for the panel approved. Workshops will be recorded with the permission of all panel members. Otherwise, detailed notes will be taken. Interim meetings will be held as deemed appropriate and will be recorded.

Evaluation of PPI

In addressing the third research aim 'to evaluate the impact of the research engagement on all of the panel participants, the research team is conscious of the 'with or by' focus of public patient involvement (INVOLVE, 2009). While initially it is proposed that interviews are conducted with panel members after the first, fourth and sixth workshops, as well as use of transcripts and activity logs from all workshops and meetings, the panel will be asked for their input on how the evaluation should occur. It is expected that one-to-one semi-structured interviews will be conducted with each panel members focusing on their experiences of engaging in the panel. Interviews are expected to last no longer than one hour and will be held either virtually or in-person, whichever best suits the individual panel members. They will be recorded and transcribed in full.

Data Analysis

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The listed authors will conduct and transcribe the recorded interviews. Every effort will be made to ensure the authors do not lead the panel during the data collection and to remain neutral during data analysis. Data will be input into NVivo and a thematic analysis will be conducted. The steps outlines by Braun and Clarke (2006) will be followed; familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.[29] Before the final stage, the themes will be discussed with the PPI to ensure accurate interpretation by the authors.

Ethics and Dissemination

While the establishment of a PPI panel in itself does not require ethics approval, recording and using the information collected through engagement with the panel does. Therefore, ethics approval has been attained by the Ethics Committee at the authors institution for the project. Before signing up, panel members will be informed that workshops and meetings will be recorded in order to evaluate the progress of the PPI and used in writing papers outlining the process of establishing a PPI in the organisational science and management principles field. They will be made aware of their right to withdraw and be able to discuss any issues with the research team.

Papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the evaluation of the panel's engagement will be published in journals.

CONTRIBUTORSHIP STATEMENT

CH, NR and BH conceptualised the study together. All authors conducted research to support the writing of the paper. CH compiled the research in the form of a protocol paper. NR and BH proof-read and edited the paper.

COMPETING INTERESTS

None

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No primary data has been collected and used for the purpose of this paper.

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Figure Legend:

Figure 1- Hybrid Framework for Guiding the Operations of the PPI

Figure 2 – Overview of Stakeholder Identification and Recruitment

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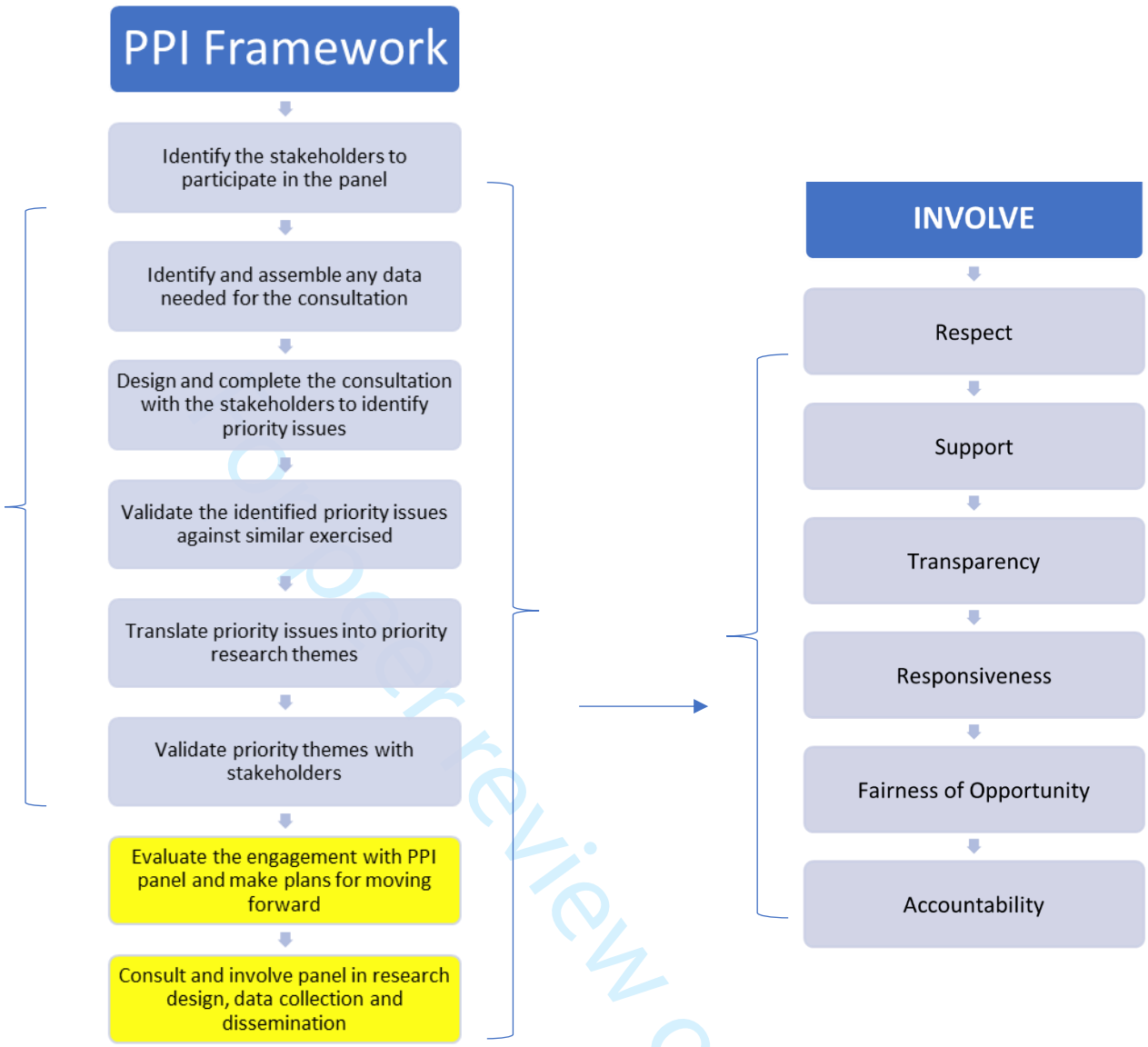

(Lomas et al., 2003)

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Panel Parameters

- Patients with experience of the Irish healthcare system over the last 3 years
- Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system of the last 3 years

Diverse Backgrounds

- Age
- Gender
- Family Status
- Income
- Education
- Ethnicity

(Mix of people with different backgrounds listed above)

Recruitment Efforts

- Recruitment flyer
  - KBS alumni data base
  - Hospital notice boards
- Networks of the research team
- Identify gatekeepers and community leaders in relevant networks
- Run a social media campaign

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ABSTRACT

Introduction:
Patient, public involvement has not been utilised to its full potential when examining the organisational science and management principles side of healthcare. With more and more acknowledgment of the relationship between management tools and patient outcomes, having meaningful engagement with the patient and the public in conducting research with the potential to enhance the patient experience, has never been more important. This study aims to outline the process in identifying members for a PPI for the organisational science and management principles side of healthcare, as well as providing guidelines for the establishment of PPIs in this nascent field. In addition, it aims to produce a charter for the panel, by and with the panel members, ensuring they are involved at every stage of research.

Methods and Analysis:
A hybrid of both a priority-setting and partnership approach to PPI will provide guidance on identifying, recruiting and establishing a PPI for research on the organisational science and management principles in healthcare. A World Café approach to panel workshops will be adopted to produce a charter for the group. An assessment of panel engagement will be conducted through analysis of records of the meetings/workshops, as well as one-to-one interviews with all panel members at key points in time. Assessment criteria will be agreed with all members of the PPI panel. Data will be transcribed and managed using NVivo through a thematic analysis.

Ethics and Dissemination:
Ethical approval for the evaluation of the PPI has been received from the Kemmy Business School's Ethics Committee. Papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the results of the assessment of the panel's engagement will be published in journals.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- A comprehensive approach to identifying members for a PPI panel on organisational science and management principles in healthcare will be undertaken.
- The combination of the priority setting and partnership models of PPI engagement ensures a true partnership involving the panel in research priority setting, design, data collection and dissemination.
- The regional focus likely limits the insights of the members to healthcare settings in one region.
- The research team are business scholars and thus will collaborate with colleagues in the medical healthcare field to learn from their experiences in PPI establishment.

Introduction

The impact of organisational science and management principles on the patient in healthcare is receiving attention recently in the literature. Organisational science research focuses on the study of individual, group and organisational behaviour, while management principles look at factors that impact said behaviour. When combined, sample topics of focus include, leadership, job design, culture, control and power, performance, motivation and training.[1] While the

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industry is comprised of a complex mix of management practices, with the ultimate focus being on patient outcomes, Mayo et al (2021) argue it is more important now than ever to look at organisational science research and see how the management of healthcare can be improved due to the impending additional challenges brought on by the Covid-19 pandemic.[2] On evaluation of the healthcare system in the US, the Institute of Medicine (2001) highlighted that the outcomes of a fragmented, complex system include unnecessary duplication of services and long waiting times.[3] The report highlights the 'disturbing absence' of progress towards improving the system despite the negative outcomes. Organisational science and management principles present important considerations in any industry, however, in healthcare the consequences of poor practices in these areas are acutely felt not only by the organisation or the employee, but by the patient. In healthcare, Lyubovnikova and colleagues (2015) have shown through research a statistical and practical significant relationship between patient mortality and the use of management tools.[4] By management tools we mean concepts such as leadership, culture, organisation and work/job design which can enable healthcare professionals to work in real teams, with shared objectives, structural interdependence, and engagement in team reflexivity. Furthermore, Edmondson et al (2016) highlight that the healthcare profession is one of 'high stakes' facing a significant level of uncertainty in delivering care to patients, yet there are significant variations in psychological safety among groups within the sector.[5] In order to deliver good quality care to the patient, Kohn et al (2000) argue that safe organisational systems need to be designed. They highlight that this would mean that systems take account of employee psychological limits focusing on issues such as, job design, operational procedures, work schedules, training, workload management.[6]

Taking Ireland as a case study, the healthcare system continues to struggle to deliver an efficient, safe, patient-focused service in line with Ireland's economic ranking in the world.[7] At the most fundamental level it is irrefutable that there is no health services without a health workforce, however, research on healthcare in high-income countries such as Ireland has highlighted the growing unmet demand for healthcare workers.[8] Ireland's inability to achieve a sustainable workforce has, for example, resulted in a deficit of over 1,600 hospital consultants.[9] One such problem identified is doctor emigration, where despite a significant increase in the number of doctors graduating in Ireland, they continue to emigrate.[10] In literature examining what factors are contributing to such high levels of doctor emigration, it emerged that issues were largely to do with principles in the realm of the organisational science and managerial practices side of healthcare. These factors included poor experiences with supervision, training and staffing levels, in addition to stressful working conditions and worsening mentoring experiences.[11] As highlighted previously by Kohn et al (2000), the impact of these poor organisational science and management practices is felt by the patient.[6] With that in mind, this study proposes to identify panel members for a PPI focused on enhancing research around organisational science and management practices in the Irish healthcare system, providing guidelines on how to set up PPI's for their research in similar areas.

Public and patient involvement in healthcare research has been increasingly important internationally for some time.[12] While it has been dated back to the 1970's, more recently there is a growing awareness of the benefits of PPI in research.[13] There is acknowledgment when organised correctly PPI can lead to meaningful engagement with participants being true partners in the design of the research process.[14] Furthermore, Braithwaite (2018) highlight that improving patient and public involvement in research is a high priority from multiple stakeholder perspectives such as policymakers, research funders, some academic journals as well as patient and lay organisations.[15] One of the more commonly cited frameworks of principles for guiding PPI's in that of INVOLVE. [16,12] The framework describes the term 'the

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public' to include a rich multiplicity of people, whether defined by age, race, nationality, disability, gender or sexuality, who may have different needs and concerns. It describes the word involvement as doing research 'with' or 'by' the public,[17] meaning the public should be involved in identifying the research objectives and methods of the group.

While the majority of literature on PPI's focuses on its use in clinical research, there is some information available on its use in health economics research,[16] and health policy research.[18,19] In one study focused on PPI in health economics it argues that while it is used in some instances, there are some barriers to it reaching its full objectives, such as a tokenistic attitude of some researchers, limited resources and skills to engage fully with it and the lack of commitment from the PPI contributors.[16] Tokenism, rather than true public involvement was also referred to as an issue in health policy research using PPI's in addition to issues around redistribution of power and role ambiguity.[18] Despite the barriers, research does cite support for public involvement in policy research.[19] Wiseman (2005) argues that where healthcare systems are funded by the tax payer, the public deserve to have a say in decisions. Furthermore, involving the public in decisions can help counter potential biases among the key decision-making health professionals.[20] While it is clear that PPI in research is not without challenges, ensuring the group is diverse, having clear roles and expectations, strong communication and ensuring the participation is from the beginning, will help address these issues.[13] Additionally, the importance of appropriate evaluation of the participant engagement will enable improvements to the ways in which the PPI operates, leading to better impact.[18]

The involvement of the patient in healthcare research in a 'with' and 'by' manner can potentially lead to the improvement in the credibility of results and impact the applicability of the results to patients.[21] In light of this and keeping the patient experience to the fore this study sets out a protocol to establish a PPI for organisational science and management principles research and assess its impact. While PPI is documented in health economics and health policy research, to the awareness of the authors, there are currently no existing PPI groups that focus on the impact of organisational science and management principles in healthcare on patient outcomes. This research, by researching the underlying issues in organisational science and management principles, will provide insight into a less researched dimension of healthcare with the potential to impact on patient care outcomes. These insights when reviewed in parallel with the clinical PPI research studies will present a more holistic understanding of the systems perspective of the alignment/disconnect in management principles and patient care outcomes. Recording the establishment of this PPI will inform other researchers in business schools on how a PPI will enhance research outcomes and better understand the process on how to go about it for non-clinical healthcare research projects. The involvement of the public and patients in guiding research on the organisational and management science of healthcare has the potential to have a real impact to the patient, for example, reduced waiting lists. Within this context the overarching aims of this research team are as follows:

- To co-produce and share knowledge that will inform policies and practices at an organisational science and management principles level in healthcare settings
- To build a stronger more representative community of stakeholders that bridges the public and patient with researchers and healthcare professionals
- To increase leadership knowledge, skills and competencies of healthcare professionals

In light of this focus, this particular study aims to:

- Describe the process of the identification of patients and members of the public for a PPI panel to meaningfully engage with the research team on organisational science and management principles in healthcare
- Produce a charter for the panel outlining the terms of reference of participants involvement, setting out a research agenda to facilitate the design of interventions that will improve business processes in healthcare settings
- Evaluate the impact of the research engagement on panel participants

Methods and analysis

The first aim of this study, establishing a PPI panel for organisational science and management principles in healthcare, will be conducted by a research team in the Business School at the authors institution. The team represents faculty members and researchers from a range of interdisciplinary backgrounds, including management, leadership, organisational behaviour, strategy, eHealth, innovation/entrepreneurship, digitization of healthcare, economics, work and employment practices and public health. The second and third aim of this study will be conducted by the research team in partnership with the PPI members subject to approval by members of the panel. The study will begin in September 2022, and it is expected to last two years.

The data for this study will be collected through a qualitative participatory approach.[21] In order to engage in a rigorous process, the consolidated criteria for reporting qualitative research (COREQ) will be used to guide both the data collection and analysis of this study.[22] In addition, when reporting the findings of this study the standardised guidelines set out by the Guidance for Reporting Involvement of Patients and the Public (GRIPP2) will be implemented.[23] With this in mind a framework has been chosen to guide the selection of patients and the public for the panel, emphasising the importance of minimising the barriers in the running of PPI's.

Patient and Public Involvement Statement

The purpose of this study is to explore the pre-formation stage of the PPI primarily focussing on the recruitment and then subsequent means of engaging members. While it is acknowledged in the literature that it is beneficial to have participants involved in objective setting[24], the first stage of this protocol focuses on identifying panel members thus at this point there has been no involvement of panel members. Consequently, this protocol outlines a high-level overview of what the researchers expect in establishing a PPI. Once panel members have been identified, the values of respect, openness, flexibility and reciprocity, as outlined by Ní Shé et al. (2020), will be upheld with objectives being amended as the PPI members see fit.

PPI Framework Development

Greenhalgh et al. (2019) from a systematic review of PPI frameworks found that frameworks developed for one research issue or context did not appear to be readily transferable to other situations, except when they have been oriented to a specific clinical field and actively disseminated within that field. Thus, for this research we adopt the characteristics of two frameworks, namely, the priority setting and partnership frameworks.[25] Given that a majority of PPI frameworks have been designed with clinical studies in mind, choosing a hybrid of multiple frameworks and adding in points which are pertinent to the organisational and management principles areas of investigation is warranted. Our hybrid approach, which is illustrated in Figure 1, will now be outlined.

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The formation of the panel will follow the six steps outlined by Lomas et al. (2003), however, will extend beyond validating research priorities to the research being conducted 'with and by' the collaborative group.[26] The first step is to identify stakeholders to take part in the PPI. The second step will identify and assemble data needed for the consultation such as evidence on problems within the organisational science and management principles realm of healthcare in Ireland. The third stage is to design and complete the consultation with the stakeholders to identify immediate priority issues and those needing attention over the next three to five years. Following priority identification, the fourth stage will validate the priorities identified against other sources of information, such as existing research in the field and Irish health policy, to ensure that the priorities are generalisable. Once validation has occurred, the fifth stage will translate priority issues into priority research themes. The sixth and final stage of the Lomas et al. (2003) model involves validation of the research themes with the stakeholders in the PPI to ensure that the researchers are staying true to the priority concerns of the panel members. These stages combined will enable the group to achieve the second aim of this study, to produce a charter which sets out a research agenda for the PPI and research team.

Once PPI members are identified and priorities have been agreed, it is expected that panel members will remain and engage in the design, data collection and dissemination of any research that takes place as a result of the priority setting. Before commencing any research with the panel a review will take place allowing panel members to have a say on how they would like the group to operate going forward. With a partnership approach through collaboration with PPI members decisions are made about power-sharing, leadership, project management, communication systems, mechanisms for inclusivity, as well as training and capacity building.[24] For this study, these issues will be addressed with the PPI members once stakeholders have been identified. From the formation of the panel to the dissemination of findings, the INVOLVE (2016) principles of respect, support, transparency, responsiveness, fairness of opportunity and accountability will be adopted.[27]

[Insert Figure 1]

Identifying Panel Members

Due to the fact that the research focuses on organisational science and management principles, recruiting patients for the panel may prove challenging. Hence, the research team needs to be mindful in its recruitment efforts to inform potential participants how patient experiences and problems such as waiting times, can be linked to management principles. Figure 2 provides an overview of our stakeholder identification and recruitment approach. The research team has set parameters on the most appropriate profile of panel members;

1. Patients with experience of the Irish healthcare system over the last three years
2. Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system over the last three years.

Purposive and snowball sampling will be the approach used to form the panel.[21] In line with INVOLVE (2016) principles and ensuring our recruitment process represents, as far as is possible, the diversity of the patient profile, individuals from all socio-economic backgrounds across the nine-grounds outlined in the Equal Status Acts 2000-2018 will be invited to participate on the panel.[26,28] Once the panel is formed, the members will be involved in drawing up an inclusion policy outlining mechanisms of inclusivity to ensure the relevant diversity and inclusivity of participants for the project at hand.

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The following strategies will be applied to source members for the PPI:

1. Design of a recruitment flyer for distribution through the Business School's alumni data base and for placing on notice boards in waiting rooms around the hospitals in the hospital group.
2. Establish new networks and build on existing networks of the research team, such as the Patient Advocacy Liaison Service (PALS) at the local hospital group, identifying gatekeepers and community leaders in relevant networks.
3. Run a social media campaign on Twitter, LinkedIn and Facebook, highlighting the purpose of the PPI and providing details for expressions of interest.

Once expressions of interest are received, the research team will meet with prospective participants to provide further information about the PPI and address any queries they might have. Due to the fact that the purpose of the PPI is related to organisational science and management principles in healthcare rather than a specific medical issue, information on health conditions will not be sought from panel members in the initial stages of recruitment. Once in operation, there may be instances, where relevant, panel members will be requested to disclose their health conditions in order to illustrate a particular experience and such information will be treated confidentially.

Engagement and decisions on the suitability of those who have expressed interest in the panel will be guided by INVOLVE principles. For example, ensuring that panel members are willing to engage in a transparent, respectful process, maximising collaboration through realising the values other panel members' contributions. In addition to this research team, comprising of three members, it is planned to recruit 6-8 patients and 6-8 members of the public, and engage at least one member of faculty (research active) from each of the four departments in the Business School (Management and Marketing, Economics, Accounting and Finance, and Work and Employment Studies).

Panel Involvement

As specific guidelines to panel involvement in PPI's relating to organisational science and management principles are not available the guidelines outlined by INVOLVE (2016) will inform the approach to panel involvement for this PPI.[27] Considerations include:

- Panel members' skills, knowledge and experience will be respected and contributions to the research will be recognised.
- Panel members will be included as key partners of research and will be involved from the outset.
- Panel members will have access to learning and development to support their involvement in research.
- Researchers will provide clear information to panel members about their role expectations and their input.
- Panel members and researchers contribute to collaborative decision making
- Panel members will commit to their involvement in research and will be willing to contribute to the research.
- Panel members and researchers understand and sign up to the principles of equality, diversity and inclusion.
- Information will be presented in accessible and alternative formats and written in plain English.

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- Researchers will be accountable to public members involved in the research.

Panel members will be recruited on a voluntary basis and will not be paid for their involvement. When the panel is engaging in research there will be consideration given to expenses in terms of travel for data collection and dissemination. Training expenses may also be covered if the needs arise. Mechanisms for such expenses to be paid will be established in consultation with the panel.

[Insert figure 2]

Panel Workshops

With recruitment of the PPI members beginning in September 2022, it is hoped that the panel will be fully formed and ready to meet for the first time by the end of January 2023. While exact arrangements for meetings will be finalised in partnership with the panel members, it is expected that the panel will meet multiple times a year. To ensure engagement at meetings the researchers will utilise workshop style meetings following the principles of a World Café.[14] Workshops will be used to design panel and research priorities, and engage with the panel in research design, data collection and dissemination. For the initial meeting, rapport building will be an important feature as well as the research team setting the context and explaining the principles of the World Café. Role clarifications are likely to be a key focus of the first workshop, with panel members being afforded to opportunity to identify what they would like to gain from involvement in the panel. Each workshop is expected to last approximately two hours in duration. While it is hoped to hold the meeting face to face, given uncertainties in the context of Covid-19, workshops may have to be held virtually. In the event of virtual workshops, the research team will contact all of the panel members individually to ensure that they have access to the virtual platform and are comfortable with using it. By the end of the third workshop it is hoped that the second research aim will have been achieved, with a charter for the panel approved. Workshops will be recorded with the permission of all panel members. Otherwise, detailed notes will be taken. Interim meetings will be held as deemed appropriate and will be recorded.

Assessment of PPI impact

In evaluating the impact of the panel on all participants (panel members and researchers), as well as on research outcomes, the research team is conscious of the 'with or by' focus of public patient involvement.[17] While initially it is proposed that interviews are conducted with panel members after the first, fourth and sixth workshops, as well as use of activity logs from all workshops and meetings, the panel will be asked for their input on how the impact should be assessed and suggestions on what should be evaluated. Analysing the impact on the public and patient participants will consist of one-to-one semi-structured interviews, taking no longer than one hour. Suggested topics for the assessment will include; their experiences of engaging in the panel, if they feel their voices are being heard, their input into shaping initial research questions, their views on the acceptability and feasibility of research proposals, whether they believe outcome measures are relevant and meaningful to patients, how they guided methodologies and access to research participants, views on the operations of the PPI, how the PPI outcomes will benefit healthcare, and how engaging in the PPI adds to their personal life. These topics are subject to being amended once the PPI members have been consulted.

From the researcher perspective points for impact assessment include; was there establishment of realistic research aims and questions, how it increased the researcher's understanding of the patients' experiences, the development of appropriate robust methodologies and research

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outcomes with both patient and healthcare practice and applied knowledge added value, evaluation of team management, communication and project management skills. Finally, the impact on the quality of research outputs will focus on the success in achieving research aims and priorities, how easily patients and researchers interpretate the research findings, strong dissemination of results, informing healthcare policy development, and more engaged and embedded partnership of co-produced research.

Data Analysis

The listed authors will conduct and transcribe the recorded interviews. Data will be input into NVivo and a thematic analysis will be conducted. The steps outlines by Braun and Clarke (2006) will be followed; familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.[29] Before the final stage, the themes will be discussed with the PPI to ensure accurate interpretation by the authors. The approach to data analysis will be further refined once PPI members have been consulted.

Ethics and Dissemination

While the establishment of a PPI panel in itself does not require ethics approval, recording and using the information collected through engagement with the panel does. Ethics approval has been attained by the Ethics Committee at the authors institution for the project. Before signing up, panel members will be informed that workshops and meetings will be recorded and analysis of the recordings may be used for reports and journal articles. They will be made aware of their right to withdraw and be able to discuss any issues with the research team.

Dissemination will involve the publication of papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the assessment of the panel's engagement will be published.

CONTRIBUTORSHIP STATEMENT

CH, NR and BH conceptualised the study together. All authors conducted research to support the writing of the paper. CH compiled the research in the form of a protocol paper. NR and BH proof-read and edited the paper.

COMPETING INTERESTS

None

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DATA SHARING STATEMENT

No primary data has been collected and used for the purpose of this paper.

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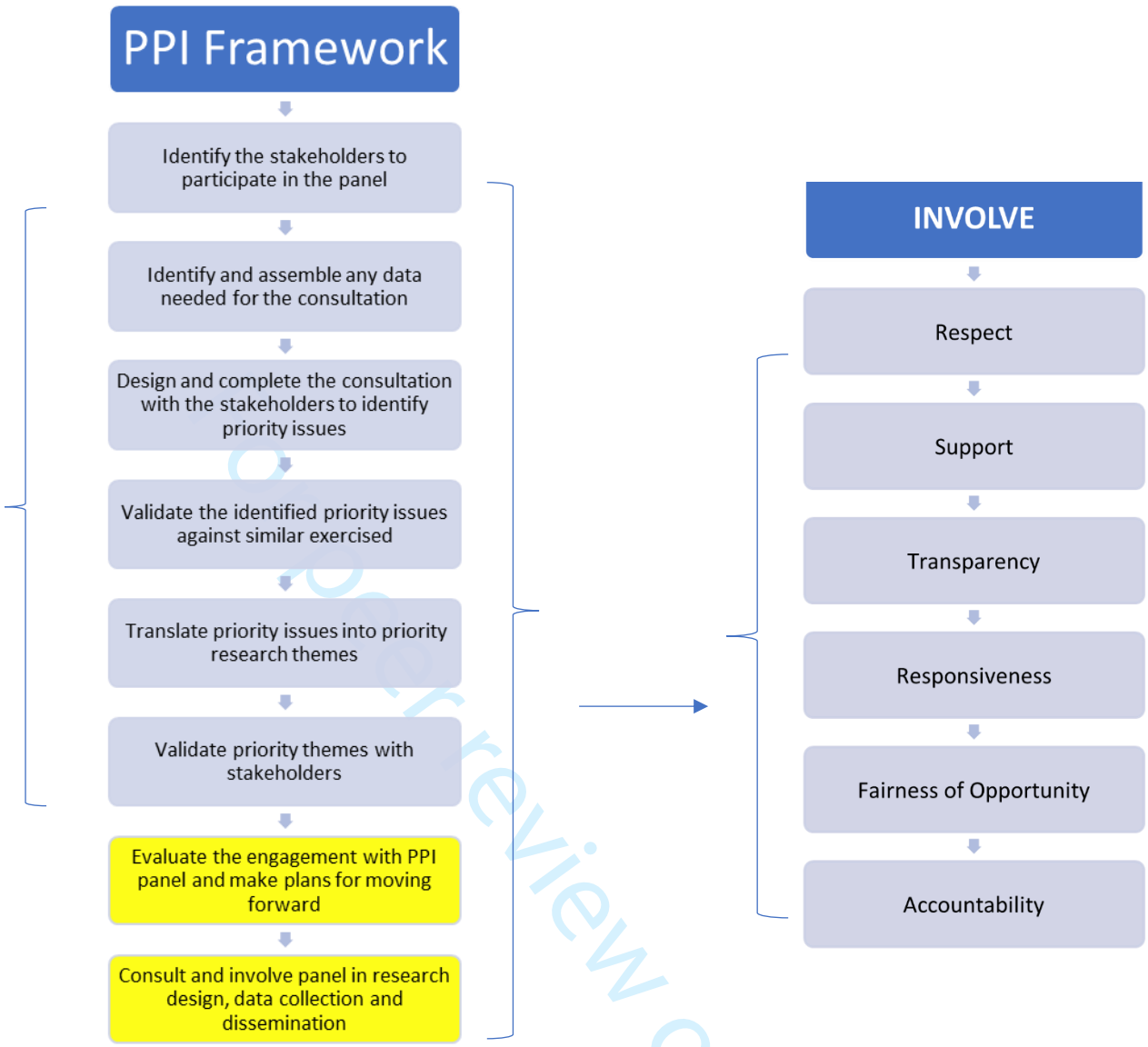
Figure Legend:

Figure 1- Hybrid Framework for Guiding the Operations of the PPI

Figure 2 – Overview of Stakeholder Identification and Recruitment



(Lomas et al., 2003)

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Panel Parameters

- Patients with experience of the Irish healthcare system over the last 3 years
- Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system of the last 3 years

Diverse Backgrounds

- Age
- Gender
- Family Status
- Income
- Education
- Ethnicity

(Mix of people with different backgrounds listed above)

Recruitment Efforts

- Recruitment flyer
  - KBS alumni data base
  - Hospital notice boards
- Networks of the research team
- Identify gatekeepers and community leaders in relevant networks
- Run a social media campaign

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TITLE PAGE

Title A protocol for establishing and evaluating a public and patient panel for organisation science and management principles in healthcare

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ABSTRACT

Introduction:
Patient, public involvement has not been utilised to its full potential when examining the organisational science and management principles side of healthcare. With more and more acknowledgment of the relationship between management tools and patient outcomes, having meaningful engagement with the patient and the public in conducting research with the potential to enhance the patient experience, has never been more important. This study aims to outline the process in identifying members for a PPI for the organisational science and management principles side of healthcare, as well as providing guidelines for the establishment of PPIs in this nascent field. In addition, it aims to produce a charter for the panel, by and with the panel members, ensuring they are involved at every stage of research.

Methods and Analysis:
A hybrid of both a priority-setting and partnership approach to PPI will provide guidance on identifying, recruiting and establishing a PPI for research on the organisational science and management principles in healthcare. The panel will consist of approximately 20 members including patients, members of the public and researchers. A World Café approach to panel workshops will be adopted to produce a charter for the group. An assessment of panel engagement will be conducted through analysis of records of the meetings/workshops, as well as one-to-one interviews with all panel members at key points in time. Assessment criteria will be agreed with all members of the PPI panel. Data will be transcribed and managed using NVivo through a thematic analysis.

Ethics and Dissemination:
Ethical approval for the evaluation of the PPI has been received from the Kemmy Business School's Ethics Committee. Papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the results of the assessment of the panel's engagement will be published in journals.

STRENGTHS AND LIMITATIONS OF THIS STUDY

- A comprehensive approach to identifying members for a PPI panel on organisational science and management principles in healthcare will be undertaken.
- The combination of the priority setting and partnership models of PPI engagement ensures a true partnership involving the panel in research priority setting, design, data collection and dissemination.
- The regional focus likely limits the insights of the members to healthcare settings in one region.
- The research team are business scholars and thus will collaborate with colleagues in the medical healthcare field to learn from their experiences in PPI establishment.

Introduction

The impact of organisational science and management principles on the patient in healthcare is receiving attention recently in the literature. Organisational science research focuses on the study of individual, group and organisational behaviour, while management principles look at factors that impact said behaviour. When combined, sample topics of focus include, leadership,

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job design, culture, control and power, performance, motivation and training.[1] While the industry is comprised of a complex mix of management practices, with the ultimate focus being on patient outcomes, Mayo et al (2021) argue it is more important now than ever to look at organisational science research and see how the management of healthcare can be improved due to the impending additional challenges brought on by the Covid-19 pandemic.[2] On evaluation of the healthcare system in the US, the Institute of Medicine (2001) highlighted that the outcomes of a fragmented, complex system include unnecessary duplication of services and long waiting times.[3] The report highlights the 'disturbing absence' of progress towards improving the system despite the negative outcomes. Organisational science and management principles present important considerations in any industry, however, in healthcare the consequences of poor practices in these areas are acutely felt not only by the organisation or the employee, but by the patient. In healthcare, Lyubovnikova and colleagues (2015) have shown through research a statistical and practical significant relationship between patient mortality and the use of management tools.[4] By management tools we mean concepts such as leadership, culture, organisation and work/job design which can enable healthcare professionals to work in real teams, with shared objectives, structural interdependence, and engagement in team reflexivity. Furthermore, Edmondson et al (2016) highlight that the healthcare profession is one of 'high stakes' facing a significant level of uncertainty in delivering care to patients, yet there are significant variations in psychological safety among groups within the sector.[5] In order to deliver good quality care to the patient, Kohn et al (2000) argue that safe organisational systems need to be designed. They highlight that this would mean that systems take account of employee psychological limits focusing on issues such as, job design, operational procedures, work schedules, training, workload management.[6]

Taking Ireland as a case study, the healthcare system continues to struggle to deliver an efficient, safe, patient-focused service in line with Ireland's economic ranking in the world.[7] At the most fundamental level it is irrefutable that there is no health services without a health workforce, however, research on healthcare in high-income countries such as Ireland has highlighted the growing unmet demand for healthcare workers.[8] Ireland's inability to achieve a sustainable workforce has, for example, resulted in a deficit of over 1,600 hospital consultants.[9] One such problem identified is doctor emigration, where despite a significant increase in the number of doctors graduating in Ireland, they continue to emigrate.[10] In literature examining what factors are contributing to such high levels of doctor emigration, it emerged that issues were largely to do with principles in the realm of the organisational science and managerial practices side of healthcare. These factors included poor experiences with supervision, training and staffing levels, in addition to stressful working conditions and worsening mentoring experiences.[11] As highlighted previously by Kohn et al (2000), the impact of these poor organisational science and management practices is felt by the patient.[6] With that in mind, this study proposes to identify panel members for a PPI focused on enhancing research around organisational science and management practices in the Irish healthcare system, providing guidelines on how to set up PPI's for their research in similar areas.

Public and patient involvement in healthcare research has been increasingly important internationally for some time.[12] While it has been dated back to the 1970's, more recently there is a growing awareness of the benefits of PPI in research.[13] There is acknowledgment when organised correctly PPI can lead to meaningful engagement with participants being true partners in the design of the research process.[14] Furthermore, Braithwaite (2018) highlight that improving patient and public involvement in research is a high priority from multiple stakeholder perspectives such as policymakers, research funders, some academic journals as well as patient and lay organisations.[15] One of the more commonly cited frameworks of

principles for guiding PPI's in that of INVOLVE. [16,12] The framework describes the term 'the public' to include a rich multiplicity of people, whether defined by age, race, nationality, disability, gender or sexuality, who may have different needs and concerns. It describes the word involvement as doing research 'with' or 'by' the public,[17] meaning the public should be involved in identifying the research objectives and methods of the group.

While the majority of literature on PPI's focuses on its use in clinical research, there is some information available on its use in health economics research,[16] and health policy research.[18,19] In one study focused on PPI in health economics it argues that while it is used in some instances, there are some barriers to it reaching its full objectives, such as a tokenistic attitude of some researchers, limited resources and skills to engage fully with it and the lack of commitment from the PPI contributors.[16] Tokenism, rather than true public involvement was also referred to as an issue in health policy research using PPI's in addition to issues around redistribution of power and role ambiguity.[18] In addressing issues around tokenism inclusion in PPI's, Ní Shé et al. (2020) highlight the importance of values guiding even the pre-commencement stage. In essence the values of respect, openness, reciprocity, and flexibility should guide the PPI as soon as the decision is made to establish one. They argue that power imbalances need to be addressed at this stage so that engagement is meaningful with open, honest and transparent communication, as well as giving everyone the opportunity to contribute. Ensuring meetings are accessible and there is openness to new ideas is also crucial.[20]

Despite the barriers, research does cite support for public involvement in policy research.[19] Wiseman (2005) argues that where healthcare systems are funded by the tax payer, the public deserve to have a say in decisions. Furthermore, involving the public in decisions can help counter potential biases among the key decision-making health professionals.[21] While it is clear that PPI in research is not without challenges, ensuring the group is diverse, having clear roles and expectations, strong communication and ensuring the participation is from the beginning, will help address these issues.[13] Additionally, the importance of appropriate evaluation of the participant engagement will enable improvements to the ways in which the PPI operates, leading to better impact.[18]

The involvement of the patient in healthcare research in a 'with' and 'by' manner can potentially lead to the improvement in the credibility of results and impact the applicability of the results to patients.[22] In light of this and keeping the patient experience to the fore this study sets out a protocol to establish a PPI for organisational science and management principles research and assess its impact. While PPI is documented in health economics and health policy research, to the awareness of the authors, there are currently no existing PPI groups that focus on the impact of organisational science and management principles in healthcare on patient outcomes. This research, by researching the underlying issues in organisational science and management principles, will provide insight into a less researched dimension of healthcare with the potential to impact on patient care outcomes. These insights when reviewed in parallel with the clinical PPI research studies will present a more holistic understanding of the systems perspective of the alignment/disconnect in management principles and patient care outcomes. Recording the establishment of this PPI will inform other researchers in business schools on how a PPI will enhance research outcomes and better understand the process on how to go about it for non-clinical healthcare research projects. The involvement of the public and patients in guiding research on the organisational and management science of healthcare has the potential to have a real impact to the patient, for example, reduced waiting lists. Within this context the overarching aims of this research team are as follows:

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- To co-produce and share knowledge that will inform policies and practices at an organisational science and management principles level in healthcare settings
- To build a stronger more representative community of stakeholders that bridges the public and patient with researchers and healthcare professionals
- To increase leadership knowledge, skills and competencies of healthcare professionals

In light of this focus, this particular study aims to:

- Describe the process of the identification of patients and members of the public for a PPI panel to meaningfully engage with the research team on organisational science and management principles in healthcare
- Produce a charter for the panel outlining the terms of reference of participants involvement, setting out a research agenda to facilitate the design of interventions that will improve business processes in healthcare settings
- Evaluate the impact of the research engagement on panel participants

Methods and analysis

The first aim of this study, establishing a PPI panel for organisational science and management principles in healthcare, will be conducted by a research team in the Business School at the authors institution. The team represents faculty members and researchers from a range of interdisciplinary backgrounds, including management, leadership, organisational behaviour, strategy, eHealth, innovation/entrepreneurship, digitization of healthcare, economics, work and employment practices and public health. The second and third aim of this study will be conducted by the research team in partnership with the PPI members subject to approval by members of the panel. The study will begin in September 2022, and it is expected to last two years.

The data for this study will be collected through a qualitative participatory approach.[22] In order to engage in a rigorous process, the consolidated criteria for reporting qualitative research (COREQ) will be used to guide both the data collection and analysis of this study.[23] In addition, when reporting the findings of this study the standardised guidelines set out by the Guidance for Reporting Involvement of Patients and the Public (GRIPP2) will be implemented.[24] With this in mind a framework has been chosen to guide the selection of patients and the public for the panel, emphasising the importance of minimising the barriers in the running of PPI's.

Patient and Public Involvement Statement

The purpose of this study is to explore the pre-formation stage of the PPI primarily focussing on the recruitment and then subsequent means of engaging members. While it is acknowledged in the literature that it is beneficial to have participants involved in objective setting[20], the first stage of this protocol focuses on identifying panel members thus at this point there has been no involvement of panel members. Consequently, this protocol outlines a high-level overview of what the researchers expect in establishing a PPI. Once panel members have been identified, the values of respect, openness, flexibility and reciprocity, as outlined by Ní Shé et al. (2020), will be upheld with objectives being amended as the PPI members see fit.

PPI Framework Development

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Greenhalgh et al. (2019) from a systematic review of PPI frameworks found that frameworks developed for one research issue or context did not appear to be readily transferable to other situations, except when they have been oriented to a specific clinical field and actively disseminated within that field. Thus, for this research we adopt the characteristics of two frameworks, namely, the priority setting and partnership frameworks.[25] Given that a majority of PPI frameworks have been designed with clinical studies in mind, choosing a hybrid of multiple frameworks and adding in points which are pertinent to the organisational and management principles areas of investigation is warranted. Our hybrid approach, which is illustrated in Figure 1, will now be outlined.

The formation of the panel will follow the six steps outlined by Lomas et al. (2003), however, will extend beyond validating research priorities to the research being conducted 'with and by' the collaborative group.[26] The first step is to identify stakeholders to take part in the PPI. The second step will identify and assemble data needed for the consultation such as evidence on problems within the organisational science and management principles realm of healthcare in Ireland. The third stage is to design and complete the consultation with the stakeholders to identify immediate priority issues and those needing attention over the next three to five years. Following priority identification, the fourth stage will validate the priorities identified against other sources of information, such as existing research in the field and Irish health policy, to ensure that the priorities are generalisable. Once validation has occurred, the fifth stage will translate priority issues into priority research themes. The sixth and final stage of the Lomas et al. (2003) model involves validation of the research themes with the stakeholders in the PPI to ensure that the researchers are staying true to the priority concerns of the panel members. These stages combined will enable the group to achieve the second aim of this study, to produce a charter which sets out a research agenda for the PPI and research team.

Once PPI members are identified and priorities have been agreed, it is expected that panel members will remain and engage in the design, data collection and dissemination of any research that takes place as a result of the priority setting. Before commencing any research with the panel a review will take place allowing panel members to have a say on how they would like the group to operate going forward. With a partnership approach through collaboration with PPI members decisions are made about power-sharing, leadership, project management, communication systems, mechanisms for inclusivity, as well as training and capacity building.[20] For this study, these issues will be addressed with the PPI members once stakeholders have been identified. From the formation of the panel to the dissemination of findings, the INVOLVE (2016) principles of respect, support, transparency, responsiveness, fairness of opportunity and accountability will be adopted.[27]

[Insert Figure 1]

Identifying Panel Members

Due to the fact that the research focuses on organisational science and management principles, recruiting patients for the panel may prove challenging. Hence, the research team needs to be mindful in its recruitment efforts to inform potential participants how patient experiences and problems such as waiting times, can be linked to management principles. Figure 2 provides an overview of our stakeholder identification and recruitment approach. The research team has set parameters on the most appropriate profile of panel members;

1. Patients with experience of the Irish healthcare system over the last three years

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2. Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system over the last three years.

Purposive and snowball sampling will be the approach used to form the panel.[22] In line with INVOLVE (2016) principles and ensuring our recruitment process represents, as far as is possible, the diversity of the patient profile, individuals from all socio-economic backgrounds across the nine-grounds outlined in the Equal Status Acts 2000-2018 will be invited to participate on the panel.[27,28]

The following strategies will be applied to source members for the PPI:

1. Design of a recruitment flyer for distribution through the Business School's alumni data base and for placing on notice boards in waiting rooms around the hospitals in the hospital group.
2. Establish new networks and build on existing networks of the research team, such as the Patient Advocacy Liaison Service (PALS) at the local hospital group, identifying gatekeepers and community leaders in relevant networks.
3. Run a social media campaign on Twitter, LinkedIn and Facebook, highlighting the purpose of the PPI and providing details for expressions of interest.

Keeping diversity and inclusion to the fore of the recruitment process, we aim to recruit members with varying levels of experience within the healthcare system. We propose that the panel should represent members who have diverse experiences based on their illness, gender, age, ethnicity and socio-demographic backgrounds. People under the age of 18 will not be invited to participate, however, their guardians will be invited to represent their experiences. This may also be required to represent elderly patients. Purposive and snowball sampling techniques will aid efforts in ensuring that the panel is inclusive at the end of recruitment.[29] For example, the researchers will work closely with the Patient Advocacy Liaison Service in the local hospital to identify potential panel members. The researchers will visit the hospital and be introduced to patients and/or their carers in order to specifically speak with those who may not be likely to respond to any flyers or social media advertisements. It is hoped that the people met through this process will lead the team to even more contacts from diverse backgrounds. General practitioners in diverse communities will also be approached to help pass on information to potential members.

Once expressions of interest are received, the research team will meet with prospective participants to provide further information about the PPI and address any queries they might have. Due to the fact that the purpose of the PPI is related to organisational science and management principles in healthcare rather than a specific medical issue, information on health conditions will not be sought from panel members in the initial stages of recruitment. Once in operation, there may be instances, where relevant, panel members will be requested to disclose their health conditions in order to illustrate a particular experience and such information will be treated confidentially.

Engagement and decisions on the suitability of those who have expressed interest in the panel will be guided by INVOLVE principles. For example, ensuring that panel members are willing to engage in a transparent, respectful process, maximising collaboration through realising the values other panel members' contributions. In addition to this research team, comprising of three members, it is planned to recruit 6-8 patients and 6-8 members of the public, and engage

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at least one member of faculty (research active) from each of the four departments in the Business School (Management and Marketing, Economics, Accounting and Finance, and Work and Employment Studies).

Panel Involvement

As specific guidelines to panel involvement in PPI's relating to organisational science and management principles are not available the guidelines outlined by INVOLVE (2016) will inform the approach to panel involvement for this PPI.[27] Considerations include:

- Panel members' skills, knowledge and experience will be respected and contributions to the research will be recognised.
- Panel members will be included as key partners of research and will be involved from the outset.
- Panel members will have access to learning and development to support their involvement in research.
- Researchers will provide clear information to panel members about their role expectations and their input.
- Panel members and researchers contribute to collaborative decision making
- Panel members will commit to their involvement in research and will be willing to contribute to the research.
- Panel members and researchers understand and sign up to the principles of equality, diversity and inclusion.
- Information will be presented in accessible and alternative formats and written in plain English.
- Researchers will be accountable to public members involved in the research.

Panel members will be recruited on a voluntary basis and will not be paid for their involvement. When the panel is engaging in research there will be consideration given to expenses in terms of travel for data collection and dissemination. Training expenses may also be covered if the needs arise. Mechanisms for such expenses to be paid will be established in consultation with the panel.

[Insert figure 2]

Panel Workshops

With recruitment of the PPI members beginning in September 2022, it is hoped that the panel will be fully formed and ready to meet for the first time by the end of January 2023. While exact arrangements for meetings will be finalised in partnership with the panel members, it is expected that the panel will meet multiple times a year. To ensure engagement at meetings the researchers will utilise workshop style meetings following the principles of a World Café.[14] Workshops will be used to design panel and research priorities, and engage with the panel in research design, data collection and dissemination. For the initial meeting, rapport building will be an important feature as well as the research team setting the context and explaining the principles of the World Café. Role clarifications are likely to be a key focus of the first workshop, with panel members being afforded to opportunity to identify what they would like to gain from involvement in the panel. Each workshop is expected to last approximately two hours in duration. While it is hoped to hold the meeting face to face, given uncertainties in the context of Covid-19, workshops may have to be held virtually. In the event of virtual

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workshops, the research team will contact all of the panel members individually to ensure that they have access to the virtual platform and are comfortable with using it. By the end of the third workshop it is hoped that the second research aim will have been achieved, with a charter for the panel approved. Workshops will be recorded with the permission of all panel members. Otherwise, detailed notes will be taken. In light of the current epidemiological situation online panel meetings will be established offering inclusion for patients with underlying health conditions or frailty.[30]

Assessment of PPI impact

In evaluating the impact of the panel on all participants (panel members and researchers), as well as on research outcomes, the research team is conscious of the 'with or by' focus of public patient involvement.[17] While initially it is proposed that interviews are conducted with panel members after the first, fourth and sixth workshops, as well as use of activity logs from all workshops and meetings, the panel will be asked for their input on how the impact should be assessed and suggestions on what should be evaluated. Analysing the impact on the public and patient participants will consist of one-to-one semi-structured interviews, taking no longer than one hour. Suggested topics for the assessment will include; their experiences of engaging in the panel, if they feel their voices are being heard, their input into shaping initial research questions, their views on the acceptability and feasibility of research proposals, whether they believe outcome measures are relevant and meaningful to patients, how they guided methodologies and access to research participants, views on the operations of the PPI, how the PPI outcomes will benefit healthcare, and how engaging in the PPI adds to their personal life. These topics are subject to being amended once the PPI members have been consulted.

From the researcher perspective points for impact assessment include; was there establishment of realistic research aims and questions, how it increased the researcher's understanding of the patients' experiences, the development of appropriate robust methodologies and research outcomes with both patient and healthcare practice and applied knowledge added value, evaluation of team management, communication and project management skills. Finally, the impact on the quality of research outputs will focus on the success in achieving research aims and priorities, how easily patients and researchers interpretate the research findings, strong dissemination of results, informing healthcare policy development, and more engaged and embedded partnership of co-produced research.

In essence, taking the experiences of panel members and researchers, this study will enable the researchers to publish research that will provide guidelines on setting up a public patient involvement panel to other business scholars who research in healthcare.

Data Analysis

The listed authors will conduct and transcribe the recorded interviews. Data will be input into NVivo and a thematic analysis will be conducted. The steps outlines by Braun and Clarke (2006) will be followed; familiarizing yourself with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report.[31] Before the final stage, the themes will be discussed with the PPI to ensure accurate interpretation by the authors. The approach to data analysis will be further refined once PPI members have been consulted.

Ethics and Dissemination

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While the establishment of a PPI panel in itself does not require ethics approval, recording and using the information collected through engagement with the panel does. Ethics approval has been attained by the Ethics Committee at the authors institution for the project. Before signing up, panel members will be informed that workshops and meetings will be recorded and analysis of the recordings may be used for reports and journal articles. They will be made aware of their right to withdraw and be able to discuss any issues with the research team.

Dissemination will involve the publication of papers outlining the process in establishing a PPI in the area of organisational science and management principles of healthcare, and the assessment of the panel's engagement will be published.

CONTRIBUTORSHIP STATEMENT

CH, NR and BH conceptualised the study together. All authors conducted research to support the writing of the paper. CH compiled the research in the form of a protocol paper. NR and BH proof-read and edited the paper.

COMPETING INTERESTS

None

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DATA SHARING STATEMENT

No primary data has been collected and used for the purpose of this paper.

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Figure Legend:

Figure 1- Hybrid Framework for Guiding the Operations of the PPI

Figure 2 – Overview of Stakeholder Identification and Recruitment

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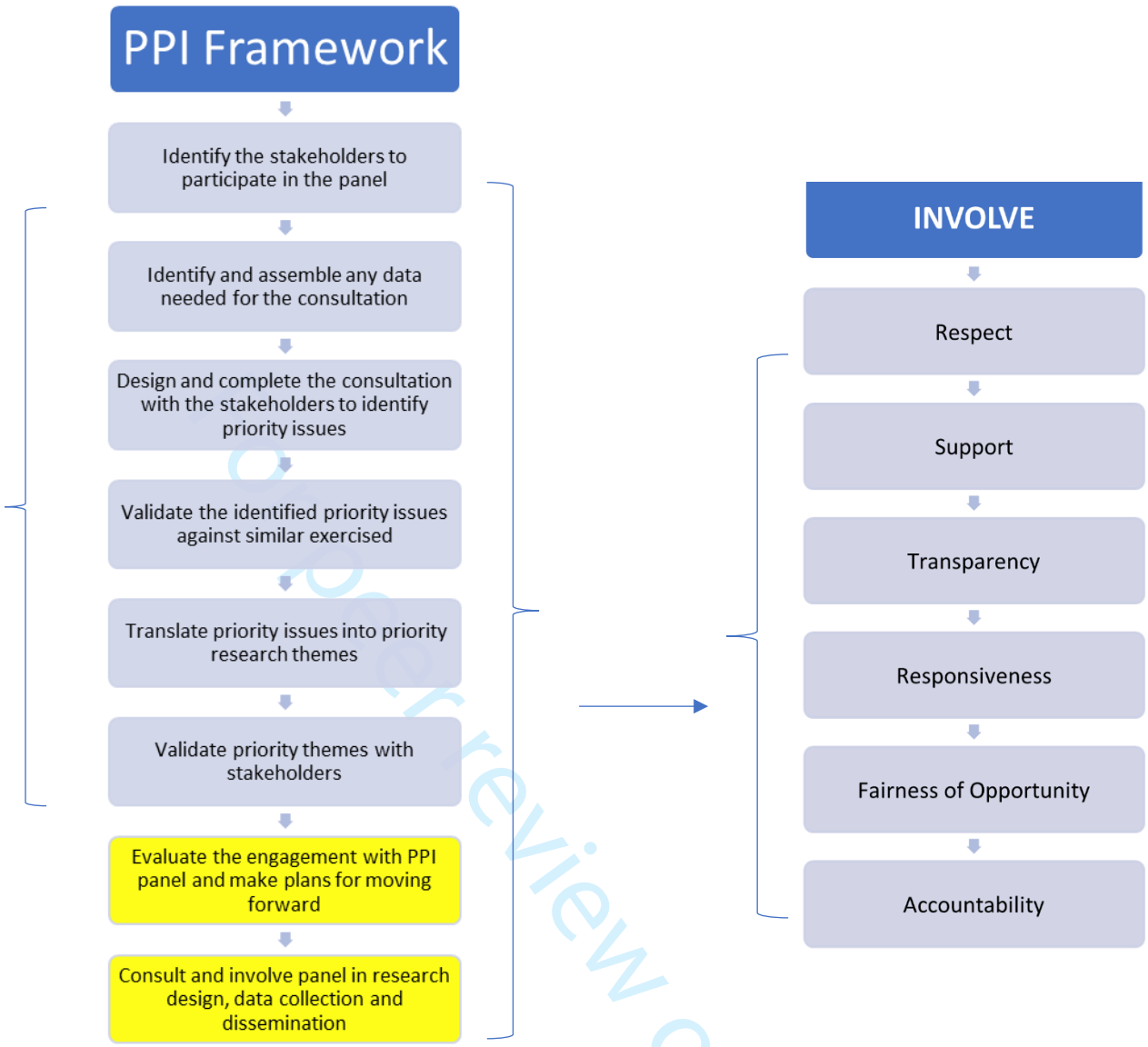

(Lomas et al., 2003)

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Panel Parameters

- Patients with experience of the Irish healthcare system over the last 3 years
- Members of the public with knowledge of management principles, of whom someone they are responsible for, has had experience of the Irish healthcare system of the last 3 years

Diverse Backgrounds

- Age
- Gender
- Family Status
- Income
- Education
- Ethnicity

(Mix of people with different backgrounds listed above)

Recruitment Efforts

- Recruitment flyer
  - KBS alumni data base
  - Hospital notice boards
- Networks of the research team
- Identify gatekeepers and community leaders in relevant networks
- Run a social media campaign

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