Pharmaceutical industry, academia and people with experience of mental illness as partners in research: a need for ethical guidance [version 2; peer review: 1 approved, 1 not approved]

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Abstract

Background: Several social and policy developments have led to research partnerships in mental health research, which depart from traditional research models. One form of such partnerships is among Research institutions, Industry (pharmaceutical and biotech) and People with lived experience of mental illness (RIPs) in the NIHR services. There are several benefits but also challenges in such partnerships. An ethics-based approach to anticipating and addressing such problems is lacking. Given the expansion of RIPs in treatment development for mental health illness, guidance to support ethical and effective collaborations in NIHR-funded mental health research is essential.

Methods: To develop a moral framework for evaluating the ethics of RIPs, we systematically searched PubMed for peer-reviewed literature discussing good practices in research partnerships. Searches were also conducted in websites of known organizations supporting patient engagement with industry in mental health research and in the references of short-listed articles. Following application of exclusion criteria, remaining articles were critically examined and summarised to synthesise principles for ethical RIPs and inform clear guidance and practices.

Results: Critical analysis and synthesis of the short-listed articles highlighted the need for two sets of principles to guide ethical RIPs: principles for (a) RIPs as a trustworthy enterprise and (b) fair RIPs. We discuss the application of these principles in problem-solving strategies that can support best practice in establishing fair and effective research partnerships among research institutions, industry and people with lived experience of mental illness in the NIHR services.

Conclusions: Ethical guidance is needed to prevent and address...
challenges in RIPs and to promote the scientific and social benefits of these new research partnership models in mental health research in the NIHR services. We show how the proposed moral framework can guide research partners in designing, sustaining and assessing ethical and effective mental health research collaborations.

**Keywords**
Research partnerships, mental health, moral framework, academia, industry, patient groups, conflicts of interest, collaboration
Introduction: Industry, academia and people with experience of mental illness as research partners in the NIHR services and the rise of new ethical challenges

Several social and policy developments have led to research partnerships in mental health research which depart from traditional research models. One form of such research partnerships is among Research institutions, Industry (pharmaceutical and biotech) and People with lived experience of mental health challenges (RIPs) in the NIHR services. Research partnerships among research institutions, industry and people with lived experience of mental health challenges are promoted by government, industry and academia as advantageous due to their potential for scientific progress and benefits to society (https://www.nihr.ac.uk/blog/its-simple-mental-health-research-collaboration-will-improve-lives/11036). Yet, despite current enthusiasm about their value, these partnerships present ethical challenges for the NIHR-funded research, for which little ethical guidance exists. They include the aim to combine competing interests and priorities of diverse research partners, the existence of systemic power imbalances among mental health stakeholders and a lack of transparency in the structure of roles and mutual obligations of the three partnering entities in the NIHR model. These ethical challenges could affect the potential of long-term collaborations and the research itself.

In RIPs research partners come from different sectors and have different motives, interests and codes to abide by. Competing interests and priorities among partners may cause internal ethical problems in research partnerships and present barriers to the conduct of research. Disagreements may arise in setting research agendas, research methodologies, recruitment strategies, the analysis or communication of research. Disagreements may also arise because of partners’ different expectations about their roles and contribution or about how partnership should work in practice. Such conflicts are common in research partnerships and subject to negotiation. However, addressing conflicts among researchers, industry and people with experience of mental health illness may be particularly challenging for two reasons. First, due to substantial heterogeneity within both mental health researcher communities and patient/carers communities, tensions arising from differing perspectives may occur among partners and within each partner group. In these cases, weighing diverse interests and views cannot be a straightforward process. Second, because systemic power and control inequalities imbedded in the mental health context may affect partnership dynamics and partners negotiations (i.e. the extent to which partners will be involved in decisions and research processes) and thus research process and outcomes. According to evidence, negotiations among unequal partners often result in unfair practices regarding authorship, ownership, and remuneration in research collaborations. To ensure that internal problems in mental health research partnerships in the NIHR services do not exacerbate existing inequalities among mental health stakeholders, raise conflicts and consume resources, research partners should rely on clear ethical guidance regarding management of disagreements and strategies for fair decision-making.

Another ethical challenge for RIPs in the NIHR services is the lack of transparency in the structure of roles and mutual obligations of the three partnering entities comprising this new research partnership model. In the NIHR services patient and public involvement (PPI) has a high value and is a requirement at the very start of NIHR-funded academic research. Yet the role of PPI contributors is less clear in studies involving the industry. In RIPs people with experience of ental illness are considered as ‘research partners’ but their relationship with industry and research institutions (the other two primary research partners) is not explicit. Confusion regarding lay partners’ roles and contribution in mental health research contradicts NIHR’s commitment to advancing traditional PPI and to promoting effective partnerships among the three entities for the acceleration of mental health treatments. Mental health research is underfunded and needs to heavily rely on industry funding. Lack of transparent articulation of partners’ relations and processes to overcome irreconcilable disagreements among them may further complicate existing ethical challenges for mental health research partners in the NIHR services.

1 In the NIHR model, the relationship of lay partners with industry and academic researchers is not clear and thus not specified whether patient priorities should be integrated in industry-sponsored research conducted within the NHS. This however is a requirement in all other kinds of NIHR-supported studies.

11 Going the Extra Mile
By bringing together PPI contributions, academic institutions and the industry, the NIHR model is assumed to correct public’s negative perception regarding the role of industry in mental health research and the traditionally problematic relations between patients and mental health researchers. However, given that little information about the structure of the mutual obligations among the three partnering entities and principles according to which RIPs operate is publicly available, concerns regarding the ethical credibility of such partnerships in the NIHR services may arise. In particular, known challenges regarding patient representation and diversity, industry’s undue influence and researchers’ biased PPI strategies may raise important issues of impartiality and public trust for RIPs. Recent studies suggest that researchers may favour PPI groups that are likely to share their views and legitimise their scientific endeavours. Additionally, concerns are often expressed of industry’s undue influence on other partners and the ways by which pharmaceutical companies can mask their role in selecting and even managing mental health projects (e.g. by discouraging contrary viewpoints and delaying the release of research results). Recent accusations against some patient groups for failure to reveal the scale of drug company investment and for encouraging therapies with problematic clinical profiles and cost effectiveness add further concerns for the ethical credibility of RIPs. Given, the ethically problematic history of mental health research and the relations of mental health stakeholders, clarity and transparency regarding partners’ roles and their mutual obligations are important for RIPs to have the same credibility as traditional research partnership models in the NIHR services.

Several guidance documents regarding best practices and principles for NIHR-funded research are available; e.g. National Standards for Public Involvement, the involvement of patients and public in health and social care research, the roles and responsibilities of public as co-applicants in research, and others. However, an ethics-based approach to anticipating and addressing the ethical issues that arise when academia, industry and PPI contributors are partnering in mental health research, as discussed above, is lacking. Given the expansion of RIPs in the development of treatments for mental health illness, it is important that practical and ethical guidance is provided on potential conflicts and barriers to research when these partnerships are formed. It is also important that such guidance not only recognises the intrinsic social purpose of conducting research but also takes into account the wider social and political context in which such partnerships are formed (e.g. the existence of systemic power imbalances among mental health stakeholders). Here we propose a moral framework to guide research partners in the NIHR services in designing, sustaining and assessing fair and ethical collaborations. We then briefly discuss problem solving strategies to address potential disagreements and conflicts in research to stimulate future research in this area.

**Methods**

To acquire a comprehensive overview of ethical principles and best practices that should guide ethically credible and effective research partnerships among industry, academia and psychiatric users in the NIHR services, we first conducted a scoping literature review, which was drafted using PRISMA-ScR guidelines. The objectives of the review are to enhance clarity about the ethical acceptability of RIPs in the NIHR services and to help RIP partners in the NIHR-funded research in taking actual steps to ensure that best practices are followed when planning and forming such partnerships and conducting research.

**Eligibility criteria and information sources**

To be included in the review, papers needed to focus on ethical principles or practices for partnerships in health research. To identify potentially relevant documents, the MEDLINE database was searched for peer-reviewed literature from January 2015 to May 2020 (to focus on the most recent approaches to addressing conflicts in research partnerships). The search strategy was developed and conducted twice by the authors (the second time for validation) between 5 and 12 June 2020 and can be found in Table 1. No wild cards were used in any of the queries. We decided against including keywords relating to mental health research at the query stage of the review and filter for relevance at the screening stage (to ensure that we get a broader view of best practices in research partnerships with industry, PPI contributors and academic researchers). The search was conducted in PubMed. Peer-reviewed journal papers were included only if they were written in English. For a copy of the full protocol and list of results please contact the corresponding author.

The electronic database was supplemented by scanning websites of known organizations supporting patient engagement with industry in mental health research (e.g. the United Kingdom’s National Institute for Health Research (NIHR) the European Patients Academy (EUPATI)) and international standards guide lines and ethics codes, such as the World Medical Association’s Declaration of Helsinki, the European Federation of Pharmaceutical Industries and Associations (EFPIA), and others. Finally, the reference lists of these sources were examined to identify any additional publications. No filters regarding country of origin were used.

**Selection of sources, data charting and synthesis**

We evaluated the titles and abstracts of all publications for potential relevance. A data-charting form was used by the authors to determine the criteria for inclusion. Sources were classified based on the types of entities in collaboration and the associated proposed best practices. Articles and codes of practice were excluded if they (a) were not related to ethics (b) were focusing only on resource-limited settings (studies focusing on north-south global research partnerships were excluded because of the significantly different nature of partnerships in these settings) or (c) did not concern partnerships/networks/collaborations with at least two of the three entities in RIPs. The remaining sources were full-texted assessed for eligibility by excluding those that did not describe specifically best practices in research partnerships/networks/collaborations with at least two of the three entities in RIPs. Finally, the
proposed principles and strategies in the resulting set of sources were critically examined, summarised and synthesised, by performing a hermeneutic review. For a visual representation of the search strategy and the results, please see the flow diagram in Figure 1.

Results
Selection of sources
The PubMed search resulted in 279 papers. 12 extra records were identified through manual scan of reference lists of key papers and 7 extra records were identified through manual scan of websites of established organisations. Evaluation of paper titles and abstracts, performed by SL, resulted in 74 shortlisted papers. These either (a) described the ethics of patient stakeholder engagement/involvement in industry-sponsored clinical research or medicines research and development or (b) described the ethics of academia-industry partnerships or (c) discussed conflicts of interest in research partnerships and health care practice. The full-text assessment brought the number down to 37 included articles.

Synthesis of individual sources
The contents of all 37 included articles/reports were reviewed (single screen/review) to determine their usefulness for creating the principles of ethically acceptable RIPs. We then quantified the number of times each foundational principle and best practice was reported. Yet, we identified several important limitations with this approach: A) Not all reported principles guiding research partnerships between two of the three partnering entities of RIPs might be applicable or appropriate to guide ethical RIPs in the NIHR model. B) The fact that an ethical principle or value is not frequently reported does not imply that it is less relevant or important for RIPs.

To address these problems, we drew on the principles of hermeneutic review to critically examine, summarise and synthesise existing principles and strategies for ethically acceptable RIPs. We thematically grouped the foundational principles and best practices identified from the scoping review based on how they captured the unique features and challenges presented in RIPs. This approach enabled us to both identify weaknesses in the dominant ethical approaches for addressing the complexity of RIPs and to develop a theoretically informed framework based on a range of resources and adapted to be useful in practice. We ended up with two distinct but inter-related set of principles that should guide ethical RIPs in NIHR-funded mental health research: ‘Ethical principles that should guide trustworthy RIPs’ and ‘Ethical principles that should guide fair and effective RIPs’.

In the following paragraphs we present the results of this analysis and propose a framework for ethically evaluating...
partnerships among academic institutions, industry and psychiatric users in the NIHR services. We have two objectives: one is to enhance clarity about the ethical acceptability of RIPs in the NIHR services; the second is to help RIP partners in taking actual steps to ensure that best practices are followed when planning and forming such partnerships and conducting research.

**A moral framework for evaluating the ethics of RIPs**

RIPs as a trustworthy research enterprise. For RIPs in the NIHR services to have the same legitimacy and credibility as traditional models in mental health research, the following ethical criteria* must be fulfilled:

**Scientific integrity**

For a mental health study to be ethically justified it must have scientific and social value. A necessary condition then for RIPs to be trustworthy is to ensure that their studies are scientifically sound (e.g., follow the core scientific principles of objectivity, transparency, and quality assurance) and likely to generate valuable information. RIPs must avoid scientific misconduct (data falsification, plagiarism, etc.), address any methodology or bias concerns and ensure that highest standards are followed when their studies are designed, conducted, and reported.

**Commitment to research ethics principles**

Research partnerships can constitute mutual beneficial collaborations but to be ethically acceptable the potential for each partner to pursue their own interests needs to be constrained by the ethical imperatives of research ethics. This means that the ethical acceptability of RIPs rests on a shared commitment to maximise the potential benefit to society by the production of new knowledge while abstaining from any mistreatment or injustice to research participants and their communities (e.g., studies resulting in serious harms for participants must be terminated despite financial consequences or professional or personal disappointments). For RIPs to be ethically credible all partners should jointly comply with relevant legal and ethical requirements for the conduct of mental health research as they apply in each case (biomedical research, psychological research, etc.). RIPs should ensure that all partners involved

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*The aim of this paper is not to respond to concerns about the value of patient involvement in research or whether industry-academia partnerships can be ethically tenable. As both these positions may be controversial, we presume that if RIPs follow a set of acceptable ethical standards, they are ethically justifiable.
are appropriately educated and trained to fulfil their ethical responsibilities according to their role.87

Professional autonomy and independence
For RIPs to be a trustworthy and ethical research enterprise, all partners should demonstrate common commitment to professional integrity and autonomy. Partners interactions, arrangements and relationships should be appropriate over all stages of research.9,16,22,23 When academic researchers are engaging with funders and patient groups they should adhere to the ethical codes of their own organisation and the existing legislations (e.g., not compromise their academic freedom, independent inquiry, the right to publish etc.)14,19,20 Pharmaceutical industry should operate according to their rights (or lack thereof) as a partner with regard to all aspects of research (e.g., ownership and access to research data).15 The independence of patients/patient organizations and other provisions set out in existing codes of conduct should be respected by all partners.25 No financial or other benefits should be sought, provided or accepted that may compromise their ethical obligations to their research participants and society.

Transparency
Transparency is important to restore public’s trust in science and research collaborations in mental health as it helps partners to identify (and potentially address) ethical issues that could undermine the trustworthiness of research. RIPs should establish clear disclosure processes (e.g., formal written conflict of interest management plans), so that partners’ (present and past) commitments and affiliations with other parties or companies, their political and financial interests and the partnership’s objective, scope and policies are visible and known to the public.9,19,26

Public accountability
To maintain public trust RIPs have ethical obligation to ensure public accountability of research and its results. RIPs should ensure that all research partners adhere to the underlying principles for the potential social benefits of research, prospectively register their studies,14 comply with recognised publication ethics guidelines, and disclose both positive and negative results.14 RIPs should also develop transparent and clear communication strategies for the public to be aware about their aims, policies and the results of their work and promote public discussion.9,19,22

RIPs as an effective and fair research enterprise. In the following paragraphs we suggest ethical principles that would support successful partnerships, worthwhile health projects7 and promote fair and ethical relationships among partners in the NIHR-funded mental health research; these are principles that should guide RIPs at the partnership level.

Respect
For the contribution of all partners to be acknowledged, all research partners (irrespective of their role or the degree of their involvement) should be considered as valued members of the project and treat each other with respect. RIP members should avoid any act that may cause physical or social harm to those involved in the project9,23 and ensure that the rights and reputation of their partners are respected by adhering to highest possible ethical standards.5,22

Fairness
To avoid exploitative practices, RIPs should rely on policies and processes that can be shared by all partners involved. RIPs must ensure that their policies recognise the capacities and commitments of all partners, acknowledge everyone’s contribution and achievements (e.g., in research publications) and provide compensation when appropriate (e.g., to cover costs for researchers and lay partners training).25,26 Commitment to fairness also suggests that research partners must consider the moral responsibilities that each of them has in promoting fair partnerships in the studies they are involved in and the commitments they need to make such partnerships work. For instance, a useful and structured training for research partners on how to address conflicts or improve communication could be considered a necessary condition to meaningful working relations rather than a costly and time-consuming practice for those involved.3,29

Effective governance
Effective governance suggests that RIPs are structured in a way that would facilitate productive research by developing clear management plans regarding roles and responsibilities of each partner (degree and stages of their involvement), expectations of reciprocal benefit and risk sharing. RIPs should also ensure that suitable mechanisms and clear processes exist to foster effective communication among partners19 and fair decision-making processes to control potential conflicts and competing commitments of partners25,30 and to address problems arising at the beginning and throughout the course of research projects.22

Transparency and accountability within RIPs
RIPs should rely on clear, transparent procedures that ensure mutual understanding and promote fairness. Although openness and disclosure are not a panacea for addressing all disagreements and conflicts of interests in research partnerships, they allow research partners to evaluate such conflicts, to determine their likely impact3,32 and to consider possible solutions. Transparency within RIPs is also important to hold partners accountable to each other in their collaborative activities and ensure that their interactions with each other do not compromise their professional integrity or their obligations towards their research participants and society.3,22,23

Summary
The critical analysis and synthesis of the 37 included articles highlights the need for two sets of principles that should guide ethical RIPs in the NIHR services: (a) Principles for RIPs as a trustworthy enterprise (e.g., public accountability, transparency) (b) Principles for RIPs as a fair and effective enterprise (e.g., effective governance, respect).
Discussion: Developing strategies for ethical RIPs in mental health research

To establish ethical and effective RIPs in the NIHR services, it is important that the ethical principles discussed above inform clear guidance and practices. To ensure that RIPs are publicly committed to rigorous standards of practice, systems which could prevent and address risks that might undermine meaningful research need to be developed without however putting unnecessary burdens to productive and meaningful partnerships. Given that such ethical guidance for RIPs in the NIHR model does not exist, below we propose strategies that focus on minimising potential or actual conflicts. We also provide actions that can support best practice in establishing fair and successful mental health research partnerships in the NIHR services.

RIPs as a trustworthy enterprise

Updating existing guidelines. For RIPs to have the same credibility and legitimacy as traditional models in mental health research, existing research ethics guidelines need to be tailored appropriately. We recommend updating conflict of interest policies to take into account partners’ political, social and commercial interests, prior and existing commitments and affiliations with other organisations and/or businesses. Such disclosure is an important means of minimising risk of bias and undue influence in the conduct and report of research. Existing guidelines should also describe what an appropriate form of accountability may be for different RIP models and types of research in the NIHR services.

RIPs as an effective and fair research enterprise

RIPs differ in terms of structure, processes, objectives and outcomes. This suggests that there may be different but legitimate ways of addressing ethical disagreements among partners and supporting transparent and fair partnerships. Some of the strategies we list below may be appropriate for some RIPs or help them consider how they might be applied with some modification to support good practice in their own collaborative projects.

Supporting effective governance

a. Partners’ governance documents

An important step to ensure the ethical integrity of research partnerships is to inform and develop RIPs’ governance documents based on the ethical considerations discussed earlier. Self-regulatory codes of conduct and principles are essential for RIPs’ effective governance and accountability. Governance documents should specify appropriate interactions among partners, who should be held accountable when misconduct occurs (e.g. all partners, the project manager, etc) and outline agreed procedures regarding decision-making, resolution of disputes, dissemination of research findings, data sharing, intellectual property, and others.

b. Legal binding contracts

Developing governance documents into binding contracts among all research partners can be another way to address potential and actual issues related to fairness, accountability and transparency. Relying on legal binding arrangements could be a practical step to formalise the roles and responsibilities of each partner as well as their expected contribution and remuneration. A binding contract among research partners could help partners avoid confusion and misunderstandings, recognise each other’s professional role and broader commitments and ensure that partners’ obligations are met and harms that could potentially result from exploitative processes are prevented. Regulatory protections are also important to ensure that for each partner professional independence is maintained and that all partners are protected from coercion or other kinds of harm (e.g. reputational harm, compromise of academic freedom; involvement of people with first-hand experience of mental illness in processes they may be uncomfortable with, etc).

c. Consultants

Another strategy by which RIPs can improve the quality of their governance is by involving individuals with relevant technical, ethical, administrative experience as consultants to provide organisational content expertise. Consultants can help with coordination of the meetings, facilitate negotiations or provide training and supervision according to partnership needs.

d. Shared management

In some cases, research collaborations are perceived as ‘successful’ when all partners take a role in managing the relationship. A shared management model will be appropriate for RIPs relying on the equal contribution of all partners. In shared-management models each partner entity selects an individual to become a ‘relationship manager’, ‘champion’ or ‘facilitator’. Relationship managers are dedicated to making the partnership a successful collaboration and in some cases to maintain partners relationship following completion of a project.

Addressing disagreements by relying on transparent processes and impartiality

a. Consensus-based approaches to decision-making:

To ensure transparency and impartiality in partners’ negotiations, RIPs may adopt one of the consensus-based approaches to decision-making listed below:

Nominal group technique is based on structured small group decisions followed by a shared voting or ranking exercise. This technique is useful when decisions need to be made quickly and everyone’s opinion should be taken into account.

Delphi technique is undertaken predominantly by a question-naire followed by a group discussion. This approach takes into account diverging values and viewpoints among partners. It is especially useful in contexts where participants are not equal and are knowledgeable in different areas.

Consensus development conference combines consensus with some form of metrics. Summary statements are debated in a meeting and then participants seek consensus on the most important of these statements.
b. Neutral facilitators
Another strategy to ensure that all partners have equally contributed to decision-making processes is by using a neutral facilitator to undertake the coordination and administration of partnership negotiations. Neutral facilitators are individuals who are able to listen to, respect and incorporate into the process different perspectives. In other cases, this role may be taken by an executive committee, an advisory group\textsuperscript{16,19}, a steering committee\textsuperscript{22} or an independent board of trustees. Neutral facilitators aim to ensure impartiality, and that potential conflicts are avoided, and partners’ independence is not compromised\textsuperscript{49}.

Improving research processes and establishing good relationships among partners

a. Sharing good practices within partnerships
The relationship of research partners is an essential part of ethical collaborative mental health projects. To form the foundation for trustworthy and ethical RIPs, sharing good practices and lessons learnt within RIPs is important. Opportunities for shared learning can facilitate transparent decision-making and relationship building within partnerships\textsuperscript{40,41} and address bias and presumptions that partners may hold for each other.

b. Partnership evaluations
Assessing the quality of partners’ relationships in different RIP models and types of research is important to identify and address the unique challenges they present. Understanding how partners share information with each other and how they value each other’s contribution in various types of RIPs in the NIHR services may help partners identify possible insufficiencies in adopted strategies and potential and actual barriers in establishing meaningful partnerships in different contexts. Such evaluations can also help partners to appreciate the importance of creating the right platforms where they can meaningfully work together\textsuperscript{42,43} (and share good practices and lessons learned as mentioned earlier).

Evaluations are also important to increase the quality and acceptability of the decision-making processes\textsuperscript{36,44} and reflect on the progress made towards planned research goals\textsuperscript{3}. This can take the form of formal evaluations\textsuperscript{37}, regular reviews, compliance and ethics follow up tools\textsuperscript{45} or reflecting spaces (specific times and places) where partners have an opportunity to revisit their initial motivations and agendas and critically reflect on the research itself\textsuperscript{3}.

c. Partnership relationship managers
Frequent internal communication among partners are also considered important for successful partnerships\textsuperscript{30,45} to which facilitators play a key part. In such cases, ‘facilitators’ or ‘brokers’ are usually individuals with a highly developed social skill sets and understanding and knowledge of different partners cultures (e.g. with academic and industrial experience) recruited to manage partners’ relationships. Their role is to split time in different institutions/partner groups and to act as interpreters to facilitate conversations\textsuperscript{2}, and good relationships among partners. Facilitators can help partners understand institutional and individual priorities of other partners and discuss alternative approaches in their collaboration and research. Steering groups may also play that role and help RIPs operate at a practical level by identifying capacity and preferred methods of communication with partners\textsuperscript{30} and by ensuring that partners are informed and committed to the aims of the partnership.

Conclusion
There are several benefits but also ethical challenges in research partnerships among academic institutions, industry and psychiatric users in the NIHR services. Ethical guidance is needed to prevent and address these challenges but also to promote the scientific and social benefits of these new research partnership models. The aim of this paper was to provide a platform for further articulation of ethical practices in RIPs in the NIHR services rather than to provide an exhaustive action list for those involved in such partnerships. We claimed that to establish ethical and productive RIPs, ethical principles should inform clear guidance and practices. These principles were identified through a scoping review and critical analysis. We need however to note that a broader and more thorough review of the literature is needed to confirm or challenge our results. Based on our findings we proposed strategies that can support best practice in establishing fair and successful mental health research partnerships among academia, industry and people with experience of mental illness in the NIHR services. We hope that this work will stimulate further discussion and encourage empirical work to assess whether and how a prospective ethical tool may promote ethical partnerships and support socially valuable mental health research.

Data availability
Underlying data
All data underlying the results are available as part of the article and no additional source data are required.

Reporting guidelines
Figshare: PRISMA-ScR Checklist and flow diagram for ‘Pharmaceutical industry, academia and people with experience of mental illness as partners in research: a need for ethical guidance’. https://doi.org/10.6084/m9.figshare.12719810.v3\textsuperscript{46}.

Data are available under the terms of the Creative Commons Attribution 4.0 International license (CC-BY 4.0).
Open Peer Review

Current Peer Review Status: ✔️ ✗

Version 2

Reviewer Report 04 May 2021

https://doi.org/10.21956/wellcomeopenres.18190.r43042

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Major Concerns
1. Perhaps the single most pressing issue is that there does not appear to be any lived experience researchers on the authorship team. For a paper about the ethics of collaborating with people with lived experience, it is almost an unbelievable omission (which kept making me second guess myself thinking I had missed it). Why wouldn’t collaboration with a lived experience researcher be the absolute first step in conducting this research?

2. The conceptualisation of the partnerships discussed is poorly described. I couldn’t work out if you were only concerned with partnerships between all three parties (research institutions, industry, and people with lived experience), or whether just two of the parties needed to be present for the partnership you discuss. Similarly, I couldn’t work out why industry only referred to pharmaceutical and biotech - there are other industry stakeholders but you seem to have very narrowly defined industry without a clear indication about why that is the case. In some of the citations you provide, the partnerships discussed include only research institutions and people with lived experience - which left me wondering why industry had been brought in at all and what the conceptual/theoretical basis was for doing so.

3. Somewhat related to the above, the conceptualisation of a ‘partnership’ between research institutions and people with lived experience has not been fully developed. It is positive to see that the review process was open to “a broader view of best practices in research partnerships”, and it is good to see the discussion about “unequal partners [resulting in] unfair practices regarding authorship, ownership, and remuneration”. However, some more detail about what constitutes such a partnership (even just one paragraph) - even if they are broad and varied - would be useful.

4. In most paragraphs of the introduction and discussion, only one or two sentences contain
citations. It's not clear if the bulk of the work comprises opinions or if citations have been forgotten or intentionally left out.

Further, even in the results there are lots of statements that appear as opinion. For instance in the ‘respect’ subsection of the results, it is stated “For the contribution of all partners to be acknowledged, all research partners (irrespective of their role or the degree of their involvement) should be considered as valued members of the project and treat each other with respect" This sounds reasonable enough but it's not clear where it has come from. Is this just your thoughts? (Not disagreeing with them if so) It's not clear whether an analysis has actually taken place given the lack of linking results to the literature meaningfully.

5. Articles were excluded if they “did not concern partnerships/networks/collaborations with at least two of the three entities in RIPs” - so does this mean that they would be included if they concerned partnerships between pharmaceutical and university entities (but did not include people with experience of mental ill health)? If that's the case then what is the focus of the review? Partnerships between the pharmaceutical industry and academia have completely different power relations and therefore ethics compared to partnerships between the pharmaceutical industry, academia, and people with lived experience of mental ill health.

6. The method section does not outline the kind of review done. (Hermeneutic review is discussed in the Results section, but not in the methods section about ‘selection of sources, data charting and synthesis’) It's not clear to a reader what this kind of synthesis is nor how it was performed in the current study.

7. Similar to point 4 above, when I got to the discussion section I noted that few points being made were related to the findings of the review or the broader literature. Again it looks like statements are being made (that all have fine face validity, to be fair) that might have just been ideas. It's not clear if the discussion emerged from the review findings, or if these are opinion pieces draped independently.

Minor Concerns
1. The overuse of acronyms makes it really difficult to read this paper. Indeed ‘NIHR’ is never defined; RIP isn't explained very well (is it an acronym for the partnership?); PPI is probably going to be understood by most readers; but taken together all this reliance on acronyms serves you as writers, not readers who have an excessive cognitive load trying to keep on top of them all!

2. In 3 places in the manuscript it is claimed that this is a ‘critical analysis' without any indication of what that might mean in this context.

Is the work clearly and accurately presented and does it cite the current literature?
No

Is the study design appropriate and is the work technically sound?
Partly

Are sufficient details of methods and analysis provided to allow replication by others?
No

**If applicable, is the statistical analysis and its interpretation appropriate?**
Not applicable

**Are all the source data underlying the results available to ensure full reproducibility?**
Partly

**Are the conclusions drawn adequately supported by the results?**
No

*Competing Interests:* No competing interests were disclosed.

*Reviewer Expertise:* Lived experience leadership; systematic reviews.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to state that I do not consider it to be of an acceptable scientific standard, for reasons outlined above.

Reviewer Report 26 April 2021

https://doi.org/10.21956/wellcomeopenres.18190.r42839

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**Anna Chiumento**
Department of Psychological Sciences, University of Liverpool, Liverpool, UK

Many thanks for the invitation to review this resubmission, and my thanks to the authors for their constructive engagement with the initial review. I found this version of the manuscript clearer for the additional detail in the background, and the presentation of the methodology and adherence to PRISMA-Scr guidelines. I also found the overall argument development throughout the paper improved, with the discussion more clearly linked to the findings of the scoping review.

I therefore consider this article approved, and have only minor comments and editing points relating to the resubmission:

- Given the open search strategy, I'm not persuaded that this paper presents findings specific to the considerations that may arise in mental health research. As the authors note, a focus on mental health or psychosocial research was not included in the search strategy or screening of included studies, and the results suggest that potentially distinctive ethical issues that may arise - such as questions of capacity or ensuring accessibility of meetings or documents - were not highlighted. The authors do themselves recognise this limitation - in the methods section noting that they sought to “get a broader view of best practices”. They also seem to move away from the mental health research focus as the paper develops e.g. p.7 in the summary “need for two sets of principles that should guide ethical RIPss in the
NIHR services”. In light of this, I suggest it would be better to remove the reference to mental illness from the paper title and abstract given the study speaks more to issues of research partnership (involving researchers, industry, and patient representatives) than they do potential ethical issues in such partnerships in a mental health context specifically.

- In the discussion I would like to see more engagement with the 2 sets of results (on Trustworthiness and on effective and fair research), particularly considering how these two may relate to one another. I note that the considerations under effective and fair research intuitively appear to act as drivers of trust and trustworthiness. Developing this line of argument further would add to the growing literature around the relationship between ethics and trust.

- I recommend a thorough proof-read of the paper, I noted missing words (e.g. p.7, first line of “public accountability” should read: “To maintain public trust RIPvS have AN ethical obligation to…….”; and p.3 in the introduction there is an “m” missing in “mental health research”.

- References: as before, the referencing appears inconsistent, with missing page numbers (some have just start pages, others start and finish), links to sources, and access dates.

Once again, many thanks to the authors for their ongoing engagement in this review process. I hope these additional brief comments offer useful final points of feedback.

**Is the work clearly and accurately presented and does it cite the current literature?**

No

**Is the study design appropriate and is the work technically sound?**

No

**Are sufficient details of methods and analysis provided to allow replication by others?**

No

**If applicable, is the statistical analysis and its interpretation appropriate?**

No

**Are all the source data underlying the results available to ensure full reproducibility?**

No

**Are the conclusions drawn adequately supported by the results?**

No

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Mental health research, bioethics, social sciences.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard.
Anna Chiumento

Department of Psychological Sciences, University of Liverpool, Liverpool, UK

Many thanks for inviting me to review this article which presents a scoping review and the authors recommendations regarding the need for ethical guidance to support effective partnerships between the pharmaceutical industry, academia, and service users when conducting collaborative mental health research. Overall I found the article made some interesting points, but lacked clarity of focus and failed to present a sustained and persuasive argument of the need for additional ethical guidelines. Below I identify a range of overarching and specific comments for the authors to engage with to enhance their manuscript.

Overarching comments:

○ In the background the authors make an effort to situate their paper in the mental health field, developing a case for the need to conduct a scoping review to develop ethical guidelines for collaborative mental health research. However, in its brevity, this background doesn't present why these additional guidelines are necessary. The authors for example allude to the complexities of mental health research being particularly important, but the reader is never informed of what these complexities are, nor why they present distinctive ethical issues. I realise there is another paper which the authors have written (and referenced – Lignou, Geddes & Singh (2020)) that explores this in detail, however more information is needed here to substantiate their position in this paper.

○ Similarly this reader is acutely aware of the plethora of ethical guidelines already available, many of which are included in this articles scoping review. In light of this, I was struggling to see what was unique or distinctive about the particular framework the authors propose, and how this might help address some of the shortcomings of previous frameworks which seems to lie in the operationalisation or application of principles rather than the principles not already being identified in existing frameworks. The need for a new framework, and how this addresses the limitations of existing frameworks, needs to be made more explicit to identify the importance of this work.

○ Relatedly, the authors seem to move between an argument for ethical / normative framework, and the importance and role of trustworthiness (e.g. in the introduction stating “Here we propose a moral framework to guide research partners in designing, sustaining and assessing ethical and trustworthy collaborative mental health research project”). Can support be provided for the role of trust in ethical research conduct / action, and how these are being brought together in the framing of this study and the conclusions.
Methods: I found the description of the study methods lacked detail which made it difficult to assess methodological rigor. I realise as a scoping review full systematic approach is not applicable, but it would be helpful if the authors could clarify whether they followed any guidelines, e.g. the PRISMA extension for scoping reviews. In addition, could the authors please address the following.

○ Identify the question they set out to address with this scoping review, and the aims and objectives for conducting this (which are mentioned on p.5 but should come in the methods section).

○ Justify why they chose a start date of Jan 2015 for searches?

○ Include the date range for when the searches were conducted.

○ Provide the reader with information about where the review protocol could be obtained (e.g. via authors). This is particularly important as information about the scoping review is missing, such as the full list of websites that were searched. If possible it would be useful to include the full description of where was searched as supplementary data?

○ Clarify who conducted the title / abstract screening and review for data charting – and whether articles were double screened / reviewed, strengthening rigor?

○ Justify the exclusion of sources that related only to resource limited settings, and define what this means?

○ Detail and provide a reference to the hermeneutic review approach in the methods section (rather than in the results) to ensure this aligns with the figure.

○ Table 1 / methods text: please clarify if any wildcards were used as part of the search terms. I was also surprised to note the authors did not include keywords relating to mental health or psychosocial research in their searches. Can this be justified given the background focus on the specificities of mental heath research?

Results: Overall I found this section to be clearly presented, largely reiterating a familiar set of principles and their relevance to research partnerships. I was struck by the lack of focus on mental health research specifically, which may have arisen as a result of the open search strategy, but does raise questions about the relevance of the sources and results presented to the study objectives as described in the background. This is something the authors should engage with given the study focus.

Additional minor points for the results section:

○ Can the authors please identify the references for the 37 included papers? On a review of the findings I found only 27 articles were referenced.

○ On p.6 the authors make the statement “…, partners should rely on concrete ethical principles and follow fair practices”. I am interested in the idea that there are “concrete ethical principles” which the authors appear to suggest would be a way to prevent poor practice or exploitation of partners – can this be explored further?

○ The authors also seem to have an implicit framing in mind of various levels at which ethical
principles might operate, for example at the “organisational level” or partnership level. Could this be explored further, for example are the authors suggesting that some principles are specific to an organisation autonomous actions that might not apply or apply differently in a partnership context?

- Similarly on p.6 under the principle of “respect” the authors identify physical, social, and sociological harm. Can you please clarify what is meant by sociological harm? Also given the focus on mental health could it be relevant to include emotional harm or distress here? As well as in the context of industry it could perhaps be important to include reputational harm (which may be a component of social harm)?

Discussion:
Here the authors focus on proposing strategies for minimising potential or actual conflicts. I found this unexpected, and the relationship between the results of the review and the points in the discussion needs to be significantly strengthened – do these discussion points arise out of the scoping review or from elsewhere? I was not persuaded that this discussion added anything novel or useful, and may detract from the core focus of the paper which is on the need for additional ethical frameworks. Here we have a selection of other tools which may or may not be relevant in a range of circumstances, and does not seems to add anything to the existing knowledge or literature in this area.
As a more minor comment on p.7 the authors refer to enhancing ethics reviews – can you please clarify what ethics review this is referring to, research or clinical ethics? Relatedly, how do the issues in this paragraph, which largely appear to be governance related, fit within the scope and remit of an ethics committee more broadly?

Editing points:
- Please review footnotes for acronyms that are not defined elsewhere in the paper.
- References require some attention to ensure completeness – e.g. reference 41 appears to be missing the journal title, and only have the starting page number.
- I found the acronym RIPs a little off-putting given the association in everyday English with “rest in peace”. I'm not sure if others would have the same difficulty, but I would recommend that the authors consider an alternative shorthand.

I hope that these comments are useful to the authors in strengthening the clarity of this paper to ensure its contribution to the literature is fully realised.

**Is the work clearly and accurately presented and does it cite the current literature?**
Partly

**Is the study design appropriate and is the work technically sound?**
Yes

**Are sufficient details of methods and analysis provided to allow replication by others?**
Partly

**If applicable, is the statistical analysis and its interpretation appropriate?**
Not applicable
Are all the source data underlying the results available to ensure full reproducibility?
Partly

Are the conclusions drawn adequately supported by the results?
Partly

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Mental health research, bioethics, social sciences.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to state that I do not consider it to be of an acceptable scientific standard, for reasons outlined above.