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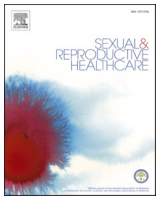

Exploring the concept of unmet need within sexual and reproductive health in England: A qualitative Delphi exercise

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ABSTRACT

Background: Unmet need within sexual and reproductive health (SRH) is a concept that is difficult to define and measure. This qualitative Delphi exercise was used to ascertain the opinions of SRH professionals on the conceptualisation and measurement of unmet need within SRH.
Methods: This exercise was carried out in two rounds. In the first round, respondents responded narratively to three prompts, which were then used to create a series of statements. In the second round, participants responded narratively to the statements created in the first round. Responses from both rounds were then coded and analysed thematically.
Results: Participants felt that an understanding of unmet need is an important part of SRH service design and provision, and believed that certain populations are often underrepresented within the datasets that are used to assess unmet need. Many respondents felt that a full understanding of unmet need within SRH would only come from involvement of relevant stakeholders in the process of investigating unmet need, and that qualitative methods may also have a role to play in gaining a more holistic understanding of unmet need within SRH.
Conclusions: Respondents within this study felt that unmet need is complex concept that has a significant impact on service delivery and the outcomes and experiences of the most vulnerable populations. We need to improve our understanding of unmet need and prioritise stakeholder voices if we want to create interventions that address unmet need within SRH.

Background

The field of health and healthcare comprises a range of complex concepts which are challenging to define and measure. The published literature is full of discourse surrounding the definition of concepts such as inequality [17], risk [14] and even health [7] itself. An understanding of these challenging concepts is not merely a thought experiment – being able to measure and define these aspects of health is key to effective policy design and implementation, and has a significant impact on the provision of healthcare.

One of these 'hard-to-define' concepts within health is the concept of unmet need. Although the term 'unmet need' is pervasive throughout discussions of health and healthcare, the challenges faced by those who aim to define health needs, or aim to capture information on the disparity between desirable and observed health outcomes, particularly at the population level, often mean that definitions of unmet need are not fit for purpose. In England, for example, although NHS England's resource allocation formulae require a geographic measure of unmet need, proxies such as standardised mortality ratio are substituted for any direct measure of service demand and utilisation, an approach which has been repeatedly criticised [2,24].

.01wAn understanding of unmet need is particularly important within the field of sexual and reproductive health (SRH), a complex area of health in which biological, behavioural, social and political factors impact mortality, morbidity and outcome inequality [12,20]. This qualitative Delphi exercise was carried out as part of a wider project that aimed to create an indicator of unmet need within SRH that incorporated a more holistic understanding of the concept of unmet need [23]. Our aim was to gain a better understanding of how SRH professionals conceptualise unmet need, and the factors and methods that they would ideally prioritise during the creation of an indicator of unmet need within SRH.

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Methods

We collected the responses of a range of SRH professionals using a qualitative Delphi exercise. This method was chosen as it has been identified as a technique that lends itself to topics where the balance of experiential knowledge far outweighs the knowledge present within the published literature [10], making it an appropriate method for further exploration of the concept of unmet need within SRH (a topic that has not been widely explored within the published literature). In addition, this method allowed participants to take part at their own convenience (allowing for a wide geographical spread of participants), and allowed participants to participate anonymously (preventing the dominance of more prominent voices within the discussion) [19].

The qualitative Delphi method used for this study was an adaptation of the method developed by sociologist Dr Dia Sekayi in 2017 [21]. The Sekayi method comprises three rounds. In the first round, respondents are given open ended prompts and asked to respond narratively. These responses are then coded and used to create a series of statements. In the second round, participants are presented with the statements created using the responses from the first round, and are once again asked to respond to these statements narratively. Responses from the second round are coded, and the analyses from this coding exercise are used to amend the statements used in round 2 and add new statements if necessary. In the third round, respondents are presented with the updated statements, and are asked to indicate their level of agreement with each statement using a Likert scale. Although the Sekayi method predominantly uses qualitative methods, the final results from this form of Delphi exercise are both qualitative and quantitative, as this method involves a quantitative measure of consensus in the final round. When performing qualitative Delphi exercises where a measure of consensus is not appropriate, researchers often omit the third round of this Delphi structure, and instead perform two rounds that are entirely qualitative [10,13,18].

Although we originally intended to follow the entire Sekayi method for a qualitative Delphi exercise, we were aware from the inception of this study that the iterative nature of the exercise meant that the results of one round may change the methodology of the next. During analysis of the results from the second round of the Delphi exercise, we found that the responses were so detailed and diverse that they would be unlikely to be enhanced by a third round that established levels of consensus, and that a third round would likely reduce the utility of the exercise with regards to exploring the concept of unmet need within SRH. We therefore decided to omit the third round, and instead completed the exercise as a two round, entirely qualitative, Delphi exercise.

Recruitment of participants

The criteria for participation in this Delphi exercise was that participants should have experience working within sexual and/or reproductive health within England. Sampling of participants for this Delphi exercise was carried out using a purposive snowball method. Participants were initially recruited from among the membership of the British Association for Sexual Health and HIV (BASHH), an organisation that promotes and facilitates the study and practice of diagnosing, treating and managing STIs, HIV and other sexual health problems, from a perspective of clinical medicine, public health and academia [5]. An email was sent to the entire membership of BASHH, explaining the nature of the Delphi exercise and asking interested participants to sign up. The email also asked participants to circulate information about the Delphi to their networks.

To preserve anonymity and limit bias, those who were interested were able to sign up to participate in the study by submitting their email address via a webform created using Opinio. We were unable to access any further personal details about the participants.

Delphi rounds

The framework for the rounds of this Delphi exercise are outlined in Fig. 1.

The questionnaire for the first round of the Delphi exercise comprised six questions: three multiple choice questions about the respondent's professional background, and three open-ended prompts exploring the concept of unmet need within SRH.

Although Opinio software was used to collect the email addresses of participants, the first-round questionnaire was administered via Surveymonkey®, due to ease of use. To ensure security, twenty individual URLs (one for each participant) were created for the survey, and we emailed each link to a single participant, allowing us to track responses and send reminders without adding contact details of participants to Surveymonkey®. To ensure anonymity, responses were neither connected to URLs or IP addresses, ensuring that, although we were able to see who had completed the questionnaire, we were not able to see which individual had given which responses. Respondents were given two weeks to complete the questionnaire, and one reminder was sent ten days after the first link.

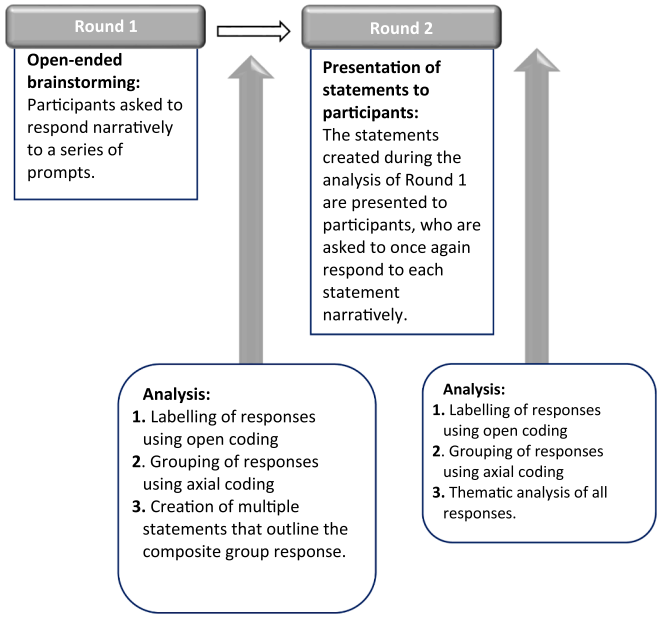

Fig. 1. Structure of rounds and analyses used within the qualitative Delphi exercise.

The first-round questionnaire was piloted using a panel comprising five public health professionals and one lay person.

The questionnaire for the second round of the Delphi exercise comprised 18 statements that had been created through analysis of the responses to the prompts in Round 1. This questionnaire was also administered via Surveymonkey®, using a similar method to that used for the Round 1 questionnaire.

Analysis

Thematic analyses of the responses from each round were carried out using NVivo software using the Braun and Clarke framework for thematic analysis [4]. The responses to each round of the Delphi exercise were coded twice by DS: first using open coding, and then using axial coding. Open codes including 'inclusion groups', 'sexual health funding' and 'stakeholder engagement', were organised into themes such as 'barriers to service use' and 'impact on vulnerable populations' using axial coding. All authors then reviewed, defined and named themes that arose using an inductive approach.

Positionality statement

All of the authors of this study have worked within sexual and reproductive health for the majority of their careers, as clinicians, public health experts and academics. We therefore share many of the experiences of the respondents within this study, and approach the analysis as peers. Our understanding of unmet need, however, is likely to have been shaped by our work with London populations, which are likely to differ from the wider range of populations that the respondents within this study have encountered as professionals.

Ethical approval

This study was approved by the UCL Research Ethics Committee (Approval ID Number: 19369/002) who determined that written consent was not required (although all participants had access to a document outlining the purpose of the research and their right to withdraw at any time).

Results

Study participants

Twenty participants originally volunteered to participate in this Delphi exercise. One participant withdrew (due to lack of expertise) prior to the commencement of Round 1. Sixteen participants responded to the Round 1 questionnaire, and twelve of those participants responded to the Round 2 questionnaire.

Respondents were asked to indicate their professional background via three multiple choice questions asked at the beginning of the Round 1 questionnaire. To preserve anonymity, there were no narrative answers to the demographic questions. Participants were able to select multiple answers (as many had professional responsibilities that meant that more than one answer would be appropriate).

The majority of respondents (n = 10) indicated that they worked in public health within sexual health (e.g. commissioning or policy making), while four respondents worked in public health within reproductive health. Five respondents worked in patient-facing roles, three within sexual health, and two within reproductive health. Two participants were academics within reproductive health (Table 1).

Respondents worked across England; the majority (n = 8) worked in the South West of England, and/or indicated that populations that they worked with were based there (n = 9). Each other region of England was represented by between 1 and 4 respondents (Table 3.1). Although all participants worked with populations in England (and were instructed to respond to the Delphi using these experiences), two indicated that they also worked with populations within the UK but outside of England, and one participant also worked with populations outside of the UK.

Round 1

1. Within the context of sexual and reproductive health (SRH), how would you describe the concept of unmet need?
2. Is an understanding of unmet need useful within SRH, and if so, how?
3. How would you measure unmet need within sexual and reproductive health?

Table 1
Responses to demographic questions within the Delphi exercise.

Which region of England do you work in?	Number of responses
North East England	1
North West England	2
Yorkshire	1
East Midlands	3
West Midlands	2
East of England	2
South East England	3
South West England	8
London	2
Outside England, but within the UK	1
Outside of the UK	1

In which region are the patients, service users or populations that you work with predominantly based?	Number of responses
North East England	2
North West England	3
Yorkshire	2
East Midlands	4
West Midlands	1
East of England	3
South East England	4
South West England	9
London	3
Outside England, but within the UK	2
Outside of the UK	1

Which area of sexual and reproductive health do you work in?	Number of responses
Patient-facing sexual health	3
Patient-facing reproductive health	2
Public health within sexual health	10
Public health within reproductive health	4
Academic within sexual health	0
Academic within reproductive health	2
Patient-facing sexual health	3

For the Round 1 questionnaire, participants were asked to respond to three prompts:

The responses to these prompts fell into three thematic areas: service users, service provision and vulnerable populations.

Service users

Barriers to service use

Many respondents felt that there were geographical barriers to service access that were contributing to unmet need within SRH. Respondents referenced both transport issues and the differences between service availability in rural and urban areas as drivers of unmet need among certain populations.

"Rurality also limits access due to transport infrastructure."
- **Respondent 10**

"…we work in a largely rural county with some urban areas, and access and reach to services has presented some challenges."
- **Respondent 11**

"The inability to access SRH information and services due to… geographical/transport boundaries"
- **Respondent 12**

1. Within the context of sexual and reproductive health (SRH), how would you describe the concept of unmet need?
2. Is an understanding of unmet need useful within SRH, and if so, how?
3. How would you measure unmet need within sexual and reproductive health?

Some respondents also mentioned people who were seeking services only to be turned away, feeling that this was also a marker of unmet need.

"Clinic turnaways / delays in accessing care [are markers of unmet need]."
- **Respondent 2**

" *[Investigating unmet need]* would require adequately funded research to identify patients who try to contact SH services and are turned away."
- **Respondent 4**

Measuring unmet need

Analysis of data on service use was the most commonly suggested method for the measurement of unmet need within SRH. Several respondents suggested comparing known levels of service use with modelled estimates of expected service use.

"…measure the number of people who are accessing the available services and compare observed vs expected numbers"
- **Respondent 1**

"The proportion of the population likely to be at risk of a poor outcome minus the sub proportion of that population group that are represented in services."
- **Respondent 9**

"I think there would first have to be a denominator of the potentially sexually active population and/or specific target group. Then perhaps the number of attendances of individuals at services, monitored against this denominator."
- **Respondent 11**

Many respondents felt that discussions with both current and would-be service users should also be part of any investigation into unmet need within SRH. There were several suggestions that qualitative or mixed methods would give further insight into the needs of populations.

"*[Unmet need can be measured using]* pt surveys."
- **Respondent 2**

"*[We need to understand]* the reasons why they are not accessing the service"
- **Respondent 5**

"Engaging with and interviewing people to hear their thoughts, particularly those thought to be most in need of services"
- **Respondent 12**

A particular challenge that was identified was the difficulty in separating need from demand – both in terms of identifying those who would benefit from services but are not aware that they have unmet needs, and in terms of those who have chosen not to access services.

Service provision

"There are also those individuals who are happy and confident to manage their own sexual health (less so with contraception perhaps), independently of sexual health professionals"
- **Respondent 11**

"…*[those who are]* unwilling to access services…"
- **Respondent 14**

"…this is NOT just looking at expressed demand…"
- **Respondent 15**

Impact of unmet need on service design

The links between an understanding of unmet need and improved service design were a common theme among respondents. Most felt that measurement of unmet need was a key aspect of ensuring that services are fit for purpose.

"Without an understanding of what is unmet we cannot create targeted interventions that will address needs in the real world."
- **Respondent 13**

"…to ensure we don't become complacent and just keep providing the same SRH service"
- **Respondent 14**

"It is fundamental to know our unmet need (and to be updated with this regularly) to understand priorities…this might be re quality improvements, partnerships needed, operational or strategic, and resources required"
- **Respondent 15**

Unmet need among health professionals

Several respondents felt that those working in service provision had unmet needs of their own, which contributed to unmet need among service users.

"There are other concerns now in terms of the wider system and pressures that increase because of backlogs in the system."
- **Respondent 14**

"This may be for the professionals unmet need, the residents unmet need, and even the commissioners *[sic]* needs."
- **Respondent 15**

There were also several references to the challenges posed by the Covid-19 pandemic and its aftermath, with one respondent expressing the opinion that these challenges may have provided a learning experience with regards to understanding and addressing unmet need within SRH.

"The intra-Covid period and post-Covid period has provided us with a great deal of additional insight. The sudden requirement to move away from face to face to a more online offer was not without challenge. However, it has highlighted processes that we were working on pre-Covid, in terms of creating a much stronger user self-management platform."
- **Respondent 11**

Vulnerable populations

The majority of respondents felt that there were certain populations who were more likely to have unmet needs within SRH. There was particular concern among respondents that significant structural barriers were preventing these groups from accessing services.

"…access need*[s]* to be improved for marginalised group *[sic]*"
- **Respondent 1**

"…particularly vulnerable groups and individuals may find that services delivered locally remain inaccessible to them."
- **Respondent 10**

"…inability to access SRH information and services due to structural barriers including experiencing racism/discrimination… unmet need can also result from individual-level factors such as not speaking or reading English well, being a newly arrived migrant who doesn't understand how to access services, or not recognising that you need services in the first place."
- **Respondent 12**

There was also recognition of the fact that those most likely to experience unmet need within SRH are often particularly difficult to identify, which has an impact on assessing needs within these populations.

"…informs social marketing approaches to reach those who are harder to find e.g. exclusion groups."
- **Respondent 11**

"But those whose sexual health needs are unmet do not tend to shout about it so remain unheard."
- **Respondent 14**

Round 2

The thematic analysis of the response to the prompts within the Round 1 questionnaire led to the creation of 19 statements, which were divided into four themes. These themes and statements are outlined in Table 2.

To avoid inserting the opinions or interpretations of the researchers into this round of the Delphi, we ensured that the statements were almost all paraphrased or clarified versions of statements that had been made by respondents during Round 1. In addition, neutral phrasing that did not indicate the direction of consensus was used as much as possible (for example, *'Healthcare funding has had an impact on unmet need within sexual and reproductive health'* and '*Rural and urban areas have different patterns of unmet need within sexual and reproductive health*'.).

The responses within Round 2 fell into three thematic areas: challenges in service provision, challenges in measuring unmet need, and stakeholder involvement.

Challenges in service provision

Many respondents felt that it was difficult to deliver services that appropriately addressed unmet need within SRH. There were several references to decreasing service availability, which respondents felt was leading to increasing levels of unmet need.

"We still do not have drop in availability at our local sexual health service which is an important route for chaotic patients who may not be able to assert themselves on the phone and often miss pre-booked appointments."
- **Respondent 2**

In terms of potential unmet need, there is still a challenge in restoring capacity to pre-pandemic levels, and that is without factoring in what unmet need may have already existed.
- **Respondent 9**

Several responses discussed the potential unmet need for services that are targeted towards specific population groups.

"Young people may have seen worse impacts due to lockdowns, through the associated contextual factors such as reduction in open clinics, stigma/real or perceived inability to raise with parents/carers for transport for an appointment in any clinics remaining open (which may be further away than in non-Covid times)"
- **Respondent 4**

"What is more challenging however is targeting specific services (e.g. HIV) to BAME *[Black and Minority Ethnic]* groups (and women), in areas of the country where the BAME demographic is less that 1% of the population."
- **Respondent 9**

Table 2
Statements presented to respondents in Round 2 of the Delphi exercise.

Theme	Statements
Causes of unmet need	The Covid-19 pandemic had an impact on unmet need within sexual and reproductive health.
	Unmet need within sexual and reproductive healthcare is most prevalent among specific groups within the population.
	Rural and urban areas have different patterns of unmet need within sexual and reproductive health.
	Healthcare funding has had an impact on unmet need within sexual and reproductive health.
	Service providers and service users both have unmet needs within sexual and reproductive health.
Markers of unmet need	If one population group has worse health outcomes than another population group, this is a marker of unmet need.
	Certain health outcomes are a marker of upstream unmet need.
Methods for measuring unmet need	Measuring unmet need is challenging.
	Questionnaires are a useful tool for measuring unmet need within sexual and reproductive health
	Service evaluation is a useful tool for measuring unmet need within sexual and reproductive health.
	Qualitative interviews are a useful tool for measuring unmet need within sexual and reproductive health.
	The Covid-19 pandemic created new insights into unmet need within sexual and reproductive health.
	Unmet need for sexual and reproductive health can be measured by looking at factors outside of healthcare.
	Finding and measuring an 'at-risk' section of the population is part of measuring unmet need within sexual and reproductive health.
	Monitoring outcomes within SRH is a useful tool for measuring unmet need within sexual and reproductive health.
	Monitoring service use is a useful tool for measuring unmet need within sexual and reproductive health.
Mitigating unmet need	Resolving unmet need has the potential to improve sexual and reproductive outcomes.
	Measuring unmet need could lead to a change in service design.
	Measuring unmet need could have an impact on service commissioning

Two main drivers of reduced service availability were mentioned by several respondents: funding, and lack of staffing.

"It is cheaper and more convenient for a service to rely on patients self care and accessing digital solutions"
- **Respondent 2**

"Services may be challenged to recruit to clinically qualified staff"
- **Respondent 3**

"Primary care options for contraception have diminished due to lack of funding to cover GP *[General Practitioner]* costs"
- **Respondent 7**

"In terms of potential unmet need, there is still a challenge in restoring capacity to pre-pandemic levels, and that is without factoring in what unmet need may have already existed."
- **Respondent 9**

Challenges in measuring unmet need

The difficulties inherent in measuring unmet need were mentioned by multiple respondents during the first round, and many respondents took the opportunity to expand upon this in Round 2. One challenge that was mentioned by several participants was the issue of the inverse care law. The inverse care law, first described by general practitioner Julian Tudor Hart in 1971, is the observation that those who are most in need of health services are least likely to access them [6]. Many respondents noted that there is therefore an inherent challenge when measuring unmet need using service use data, as those captured within these datasets are least likely to have unmet needs.

"Often those with high levels of unmet need we *[sic]* have poor data on their health outcomes"
- **Respondent 2**

"…service use is reflective of met or expressed need"
- **Respondent 4**

"…evaluation has to be carefully designed as you are trying to gather information from people who aren't accessing the service. It is much easier to pull information together on people who do successfully access care"
- **Respondent 5**

"I think this will help to determine unmet amongst service users currently engaged in services, but won't address need amongst those not in services"
- **Respondent 9**

The challenges posed by the fact that there isn't a recognised definition of unmet need, something which can also hinder attempts to measure and address unmet need, were mentioned by several respondents.

"National publications on use of services…have previously included "key points" such as intimating need is highest in those under 25 years (for example), when in fact this may simply be a result of Sexual Health policy specifically targeting the under 25 cohort for some time"
- **Respondent 4**

"…unmet need is a phrase becoming over-used and can lead to service responses being generalised when they should be targeted"
- **Respondent 7**

"Is unmet need for example more about the inability to access appropriate services in a particular location or does unmet need arise from the individual not being aware that it is a good thing to be proactive about SRH & wellbeing?"
- **Respondent 9**

Stakeholder involvement

As with Round 1, there were many responses that referred to the needs of specific communities. Many respondents went into more detail than they had previously, outlining the specific communities that they felt needed to be centred as part of the discourse surrounding unmet need.

"Lesbians are invisible across most systems. We do better with MSM"
- **Respondent 4**

"This is not necessarily a cumulative situation either, e.g. *[mental health]* + *[drug and alcohol use]* + risky *[sexual health]* behaviours does not= 3x worsening of outcomes. It can be a much more exponential and potentially devastating set of circumstances that create a worsening situation for individuals, families and communities if left unrecognised."
- **Respondent 7**

"Many people who are not able to access services will be unlikely to want to fill out a questionnaire or may be unable to e.g. English as a second language, fear of authority, lack of trust in reason for questionnaire"
- **Respondent 11**

Many respondents also emphasised the necessity of community involvement when investigating unmet need within SRH.

"Involving those affected is one key part of this"
- **Respondent 1**

"…participants should be recruited via charities and trusted organisations in local communities."
- **Respondent 11**

There was also discourse surrounding the need for involvement of stakeholders outside of SRH and even outside of healthcare; many respondents felt that understanding the needs of more vulnerable communities required a holistic approach.

"…collaborative work *[is]* needed to draw information from local public health indicators and related data sources that are held outside the sexual health clinic"
- **Respondent 5**

"Assessment processes need to recognise this potential syndemic relationship within a person's life and use this to inform treatment pathways that can respond effectively to multiple co-existing problems."
- **Respondent 7**

"…local infrastructure and transport could have a negative impact on access to services for example"
- **Respondent 11**

Discussion

Key findings

The responses to both rounds of this Delphi exercise gave significant insight into the areas that respondents prioritised when considering unmet need within SRH. Although the formalised consensus round was removed from this Delphi exercise (in part due to the breadth of responses in the first two rounds, which we felt would be lost if respondents were asked to form a consensus), there was significant agreement among the narrative responses to prompts and statements.

All participants felt that an understanding of unmet need is an important part of SRH service design and provision, and believed that there were multiple barriers to accurate measurement of unmet need within a population. A common theme was the concern that certain vulnerable populations are particularly likely to experience unmet need within SRH, and that these populations are often underrepresented within the datasets that are used to assess unmet need. There was also discussion surrounding the structural determinants of unmet need, both

from the perspective of gaps in service provision, and the perspective of factors outside of healthcare that have an impact on service access. Many respondents felt that a full understanding of these structural factors would only come from involvement of relevant stakeholders in the process of investigating unmet need, and that qualitative and mixed methods may also have a role to play in gaining a more holistic understanding of unmet need within SRH.

These findings are not unique to this study. In 2019, the House of Commons Health and Social Care committee conducted a focus group as part of a larger report on sexual health services. The participants in this focus group were professionals working in different areas of sexual health who were drawn from across the country. Many of the themes observed within our qualitative Delphi exercise arose within this discussion: participants expressed concern about service provision, particularly in the wake of funding cuts, and discussed geographical disparity with regards to service availability. In particular, the group felt that funding cuts were having a significant impact on outreach services, exacerbating unmet need within the most vulnerable communities. Participants were quoted as feeling that there was "lots of unmet need in communities who are at risk, because they are not part of the clinic population, and are therefore slipping through the net" [11]. From the service user perspective, participants within a series of focus groups carried out to inform the 2022 Women's Health Strategy for England felt that unmet need with SRH was driven by a complex range of factors including difficulty in accessing appointments, stigma, feeling dismissed by medical professionals, and lack of education surrounding sexual and reproductive health – drivers which are particularly difficult to capture using quantitative methods [8].

A literature review that we carried out prior to this Delphi exercise found that studies of unmet need within SRH largely do not focus on the priorities identified within this qualitative Delphi exercise: capturing populations who are not connected to health services, assessment of the impact of structural determinants of health and involvement of stakeholders both within and outside of SRH [22]. Most studies in this area are secondary analyses of large household studies, such as the Demographic and Health Surveys, that are designed for the monitoring and evaluation of national and international program goals and are not designed to capture the drivers or causes of unmet need. Very few studies focus specifically on the needs of underserved populations, despite the stark inequalities in sexual and reproductive outcomes observed in a range of settings [1,9]. There is also a lack of research centring the perspective of those experiencing unmet need, despite observed differences between the opinions of researchers and participants on the drivers of unmet need within SRH [3].

Another theme that emerged during our Delphi exercise was the unmet need experienced by SRH staff, something which is very rarely captured by studies investigating unmet need within SRH. Respondents within our study described the challenges posed by funding cuts, the Covid-19 pandemic and lack of staff, all of which they felt contributed to their ability to address unmet need within the populations that they serve. This is another aspect of unmet need within SRH that is currently neglected within the published literature. While some studies have identified challenges such as funding cuts as contributors to unmet need within SRH [15], very few studies have explored the experiences of SRH staff or the impact that this may have on the ability of populations to access care.

A unifying theme was the challenge inherent in defining and measuring unmet need within sexual and reproductive health. Many respondents within this study felt that the conceptualisation of unmet need within research and policy, and the tools that are predominantly used to investigate unmet need, are unlikely to provide a broad enough understanding of such a complex concept. It is therefore clear that we will need to use a wider range of research methods and prioritise stakeholder voices if we want to gain a full understanding of unmet need within SRH and create interventions to address these unmet needs.

Strengths and limitations

Limitations

One limitation of this exercise (a limitation that it shares with most qualitative research) is the lack of broad generalisability. The sampling method and the relatively small sample size means that the opinions expressed by participants may not be shared by the wider population of health professionals, and certainly cannot be used to draw conclusions about the concerns of SRH professionals outside of the UK. There is, however, a school of thought among qualitative experts that rejects a need for widespread generalisability within qualitative research, seeking instead the potential for findings to give more depth to our understanding of a specific research context [16]. With regards to this Delphi exercise, the range of respondents (both with regards to geographical location and professional background) and their ability to provide narrative responses served to illuminate the topic of unmet need within SRH in a way that would be difficult to achieve using other methods.

Another limitation was the attrition of participants before the commencement of the Delphi and between Rounds 1 and 2. This is, unfortunately, a challenge that is commonly faced when undertaking a Delphi exercise. We did, however, aim to mitigate this through recruitment of 20 original participants, which meant that the number of participants who responded to the second questionnaire was still large enough to attain a breadth of opinion.

There was also potential for us, as the researchers, to influence the responses of the participants, particularly through the creation of the prompts for the Round 1 questionnaire and the statements for the Round 2 questionnaire. In an attempt to avoid this, we aimed to keep the Round 1 prompts as open as possible, and we used direct quotes from respondents as the starting point for all of the statements in the Round 2 questionnaire.

Strengths

This Delphi exercise allowed for a unique type of discussion, involving SRH professionals from across the country. The questionnaire methodology meant that participants could complete their responses in their own time, which removed the challenge of finding a suitable time for a discussion that would have been posed by other qualitative methods such as focus groups. The two round structure gave respondents the opportunity to contemplate the topic during the time between the two questionnaires, which resulted in more nuanced and considered responses in the second round. The iterative nature of the Delphi exercise also gave us the opportunity to evaluate the methods after each round, leading to refinement of the methodology during the Delphi exercise to better suit the research aims.

Conclusions

This qualitative Delphi exercise illuminated several themes surrounding the measurement and conceptualisation of unmet need within sexual and reproductive health in England. The SRH professionals who participated in our study felt that unmet need within sexual and reproductive health was an important issue that had an impact on sexual and reproductive outcomes. They felt that an understanding of unmet need could aid in service improvement, and that many unmet needs were not being adequately identified within sexual and reproductive research and evaluation, including the unmet needs of vulnerable populations, the unmet needs of SRH staff and (perhaps most crucially) the unmet needs of those who are completely unknown to the health and care system. Identifying and measuring unmet need within SRH therefore requires a reconceptualisation of unmet need itself and a better understanding of how it can be measured and captured, if we are to adequately address the needs of populations within this area of health and healthcare.

arising from this submission.

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CRediT authorship contribution statement

Danielle Solomon: Writing – original draft, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Jo Gibbs:** Writing – review & editing, Supervision, Conceptualization. **Fiona Burns:** Writing – review & editing, Supervision. **Caroline A Sabin:** Writing – review & editing, Supervision, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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