

Men, Condoms, Data Commodity Chains: analysing evidence production on male condoms through a case study in Accra, Ghana**Joe Strong***** Department of International Development, London School of Economics and Political Science***Introduction**

Sexual and reproductive health (SRH) programmes and policies, some of the key tools for governance, rely on evidence to inform their practice. This means that what evidence is produced, how this evidence is produced, and who constitute the sample population – the ‘data commodity chain’ – all have a significant effect on governance [1, 2]. Despite the acknowledgement of the role of men as critical stakeholders in SRH at the International Conference on Population Development, 1994 [3], there remain significant gaps in knowledge and evidence production around what men think, what they do, and what components of SRH are important to better understand their needs [4, 5]. Development measures continue to frame SRH in terms of contraceptive prevalence and ‘unmet need’, reflecting a preoccupation with population control through women’s fertility regulation [6]. This commodifies data that contribute to the ongoing tracking of these measures and produces critical silences around concepts such as choice, autonomy, and rights [7, 8].

Men have a significant role in SRH. Alongside their own needs, desires, care preferences, and rights, men can play a significant role in shaping the SRH conditions of other people. This includes their ability to influence their partners SRH [9, 10] and their roles in shaping community-level norms around ‘acceptable’ sex, sexuality, and reproduction [11-13]. At the macro-level, patriarchal systems create governance structures that privilege men’s dominance, while men also contribute to the (re)production of gendered legal, economic, and political systems. Men are also able to provide positive support to individuals navigate obstacles to their SRH [14].

Critically interrogating men and SRH is, therefore, imperative to understanding the ongoing conditions of reproductive injustices and the ability for evidence-based policies and programmes to address these. Evidence on men’s condom non-/use illustrates the importance that SRH goes beyond prevalence-based measures. Men’s motivations to use or not use condoms can be tied to meanings around sex beyond reproduction. This includes associations between condom use and reductions in pleasure [15-18], the role of condom non-use in expressing trust between partners [16], as well as love and intimacy [19]. Condom use can be perceived to link to HIV and STIs and be stigmatised by association [17, 18]. Moreover, decisions around condom use can tie directly to

contextually constructed masculine norms, in which condom non-use becomes an important expression of masculinity [20].

This paper interrogates the production of evidence on men's condom non-/use in Ghana. It examines how evidence are produced on men's condom use and where there are critical data 'silences'. To do so, the paper analyses multi-method primary data from a project based in Accra, Ghana, on how men locate and conceptualise condom non-/use within their sexual and reproductive lives. It seeks to critically engage with and trouble demographic thinking that centres positivist approaches to sexual and reproductive health behaviours rooted in biomedical understandings of motivations and outcomes.

The paper operationalises a conceptual framework that understands men as acting within (and against) a gendered, hierarchal system structured around hegemonic masculinities [21, 22]. This understands masculinities and femininities as ordered around hegemonic masculine ideals and provides a tool for understanding why certain masculine norms are afforded more power and privilege within a given context. It necessitates understanding men as both gendered and as operating in complex power structures. Taking this theoretical approach, condom non-/use is understood through a pleasure lens [23]. A pleasure lens requires seeing condom non-/use as embedded within people's sexual lives and wellbeing, not simply their fertility related or biomedical concerns. Importantly, it is a lens that problematises the health and development industry's approach to men in SRH [24].

Study context

Data on current condom use in Ghana varies. The 2022 Demographic and Health Survey reports that 9.2% of all men report condom use and 4.9% of currently married men. 2.4% of all women reported male condom use, with 1.4% of currently married and 8.5% of sexually active unmarried women reporting condom use [25]. This is an increase on the 2014 Demographic and Health Survey (DHS), which reported male condom use among women as 2% overall, 1.2% currently married women, 7.9% unmarried sexually active women [26, 27]. The most recent estimates of condom use in PMA2020 (2017) and Ghana Maternal Health Survey (2017) estimated prevalence of condom use as 16.3% and 6% respectively among sexually active unmarried women and 6.1% and 1% respectively among married women [28, 29]. Based on 2014 DHS data – the only that collects information with a representative sample of men, male condoms were the main method men reported using in their most recent sexual encounter (12.98%) [30]. An analysis of 2003 DHS data found that men were significantly more likely to report using a condom across all partners than women (18.2% vs 8.6%) [31]. Policies reflect global measurements in framing condom non-/use as important for family planning indicators and goals, with a specific acknowledgement of the need to better understand men's non-/use [32].

Evidence on condom non-/use typically focuses on prevalence rates through women's reporting [33] and is framed in the context of fertility regulation or HIV prevention [34-36]. Male condoms can play a significant role in women's reported contraceptive mix, including as a way to complement behavioural methods [37-39]. Condoms can have negative association, including signalling 'promiscuous' behaviours and decreasing sexual pleasure [40-42]. Where condoms are perceived negatively, women report negotiations around their use with male sexual partners to be complex and contested [43]. An estimated one in four women report not being able to demand a partner use a condom [44]. Alongside interpersonal negotiations, gendered, normative expectations around sex and reproduction within a community can shape condom negotiation and acceptability [11]. This includes the role in contextual masculine norms shaping men's contraceptive attitudes and behaviours [45-47].

The Ghana Demographic and Health Survey (GDHS) focuses on questions relating to condom use, specifically whether a condom was used at last sex, every time in the last twelve months, or ever [25]. Additional questions include whether a person knows where to buy a condom, whether a woman could buy a condom if she wanted, and whether a woman is justified in asking her husband to use a condom in the context of HIV. Men are asked a similar battery of question, including the brand of last condom used and whether a wife was justified in asking a husband to use a condom if he had HIV. These questions, therefore, focus purely on whether a condom was used or not, without the necessary context for what motivated non-/use. Moreover, questions of justification for asking to use condoms are rooted in HIV-prevention, despite being ground in gendered power dynamics within a couple.

The framing and data captured in the DHS are significant as they inform critical components of the national SRH policies and programmes, such as the most recent Costed Implementation Plan (CIP) in Ghana [32]. Moreover, government policies on gender and on health acknowledge the need to understand gendered power dynamics and sexual and reproductive behaviours among men [48, 49]. By examining men's motivations for condom non-/use, this study provides needed insights for future policy and programme iterations, as well as visibilises the current 'silences' in data production.

Study and methods

Mixed method data were collected in 2020-21 from a sample of men aged 18 and above in James Town, Accra. Mobile phones were used to administer a respondent-driven sample survey to 306 men and conduct in-depth interviews with 37 men. This mode of data collection was designed to adhere to national COVID-19 protocols at the time (for methodological detail see [50, 51]). The survey instrument gathered quantitative and

qualitative data, captured through closed and open-ended questions on relationships, sexual and reproductive health, and masculinities. The interviews captured in-depth data on men's perceptions, conceptualisations, attitudes, and behaviours towards sex, sexual and reproductive health, and masculinities. The research instruments can be found at: <https://www.masculinitiesproject.org/>. Ethical approval was obtained from the Research Ethics Committee at the London School of Economics and Political Science (REC ref. 000802c) and the Ghana Health Service Ethics Review Committee (GHS-ERC0104/10/19).

Data analysis

Quantitative data were cleaned by the author and explanatory variables include socio-demographic characteristics (age, religious, education, relationship status, parenting) and socio-economic variables (wealth index, main source of income, whether working), alongside knowledge of whether a man's partner(s) were using contraception. Weighted ordinal logistic regressions examine the association between these variables and men's reported condom non-/use, coded as never use, sometimes use, and always use. 'Seeds' (n=26) and incomplete surveys (n=10) were excluded [52, 53]. Two sub-samples were analysed. The first included the total sample of men who were asked about their condom non-/use (n=235). This question was only asked to men who had reported ever having had sex. The second was a subsample of men (n=173) who reported having a sexual relationship of any kind at the time of the interview. These men were asked whether they would be happy if their current partner became pregnant. Due to a skip pattern error, this question was only asked to men who reported being in a relationship at the time of the survey.

Qualitative analysis is then used for the construction of a novel set of 'masculinities' variables for regressions. These variables were developed from questions about men's views of the three most important characteristics a man should have. To centre men as the survey respondents, their own words were used to inductively develop categories for quantitative analysis [54]. The data were categorised into four aspects of masculinities: individual, interpersonal, familial, community and structural. Individual level responses related to men's attitudes, beliefs, physical characteristics, and mannerisms. Interpersonal factors related to sex, sexuality, and relationships. Familial / community level characteristics related to care work and the role of caregiving within the familial unit. Structural level factors related to navigation of employment, material possessions, and finances, and are connected to men's participation in the informal and formal economies.

Further qualitative data from open text survey responses and in-depth interviews are thematically analysed to construct key themes around condom non-/use. Qualitative survey data on reasons for using contraception were cleaned and thematically analysed in Dedoose [55], with the condensed categories for men's

reasons cross tabulated into typologies of non-/users, using RStudio [56]. Open-text answers in the survey as to why men reporting using, not using, or sometimes using condoms was cleaned and constructed into themed categories for analysis. Interview transcripts were thematically analysed using an abductive approach to operationalise critical evidence and theorising around contraceptive use, sex, reproduction, and masculinities alongside novel insights from respondents [54, 57]. Transcripts were cyclically read and re-read by the author to inform the construction of a codebook. The codebook was developed by the author to capture themes that were constructed from previous literature and theories, as well as iterated during readings to include novel themes that emerged from the interview data. Codes were subsequently grouped, to construct themes that related to the intersecting motivations and meanings of condom non-/use.

Reflexivity

This research was led by a researcher from and trained in the Global North, in collaboration with Act for Change, a community organisation in James Town. This collaboration included the employment of three researchers from the community, who were paid to conduct the remote data collection during COVID-19. Due to LSE PhD regulations, it was not possible to have co-authors on this paper, and therefore the intellectual and analytic work was not able to be conducted with the research team as authorship credit could not be offered.

The survey and interview guide were designed to capture information from men on their sexual and reproductive health and their masculinities. Open text survey responses often had to be translated by the research team for analysis. Notes were made by research team to clarify any terminology or answers that were complex or more difficult to translate, but ultimately in the process of capturing and cleaning complex data some meaning may be missed. The author conducted the analysis and did additional cleaning of all data necessary for this study. As a researcher not based in the context, care was taken to ensure that data were linked to existing evidence and knowledge. This was intended to ensure that the analysis was reflective of the realities that men described. The voices, opinions, and thoughts of men who participated in the study were centred in the construction of variables and the analysis for a more grounded research approach. It is, however, necessary to consider that respondents answers and the author's interpretation are shaped by the research process.

Findings

The findings presented below triangulated multiple sources of data from the PhD project. First, the findings outline men's reported motivations for their condom non-/use. These data are presented in complementarity with qualitative data, which provides nuance into key motivations that men provide. Finally, the

results from the regression models are presented, which test the extent to which masculine norms are associated with condom non-/use.

Sample description

Table 1: Included survey sample description (n=270)

		N (%)
<i>Age</i>	18-19	42 (15.6)
	20-24	101 (37.4)
	25-29	62 (23.0)
	30-39	31 (11.5)
	40+	34 (12.6)
<i>At least one current partner / relationship</i>	Yes	181 (67.0)
	No	88 (32.6)
	Did not answer	1 (0.4)
<i>Condom use</i>	Never had sex	35 (13.0)
	Always uses	39 (14.4)
	Sometimes uses	73 (27.0)
	Never uses	123 (45.6)

Of men who had ever had sex (n=235), 41.4% reported that they either sometimes or always used a condom (Table 1). The largest proportion of men reported that they never used condoms. More details on the study sample can be found in previously published papers [58].

Reported motivations for condom non-/use

Table 2: Men's motivations for condom non-/use by reported use

<i>Reason</i>	Never use (n=123)		Sometimes use (n=73)		Always use (n=39)	
	N	%	N	%	N	%
<i>Doesn't know about condoms</i>	13	100	0	0	0	0
<i>Uses other behavioural methods such as withdrawal or rhythm</i>	5	100	0	0	0	0
<i>Currently wanting a pregnancy</i>	5	100	0	0	0	0

<i>Religious reasons</i>	4	100	0	0	0	0
<i>Doesn't feel that he needs to</i>	6	100	0	0	0	0
<i>Pleasure / feeling related effects</i>	23	85	4	15	0	0
<i>Perceived / previous side effects</i>	12	71	5	29	0	0
<i>Partner motivated his decision</i>	12	50	9	38	3	13
<i>Decision based on relationship type</i>	27	64	12	29	3	7
<i>To prevent a pregnancy</i>	0	0	22	47	25	53
<i>Protection against STIs</i>	0	0	14	58	10	42
<i>Protection (unspecified)</i>	0	0	4	44	5	56
<i>Depends on the circumstances of sex</i>	2	25	6	75	0	0
<i>Did not answer / provide a reason</i>	10	83	2	17	0	0
<i>Other</i>	7	78	2	22	0	0

Men’s qualitative reasons for why they always used, sometime used, or never used condoms are outlined in Table 2. Men who gave multiple reasons were counted more than once, meaning the total for each group are larger than the number of respondents. The percentage of people citing each motivation by their condom non-/use is also presented. Men reported multiple motivations for condom non-/use; these were not binaries in which the motivation for non-use was the antithesis of the motivation to use. For example, while 25 of 39 men always used condoms to prevent a pregnancy, only 5 of 123 men who never used reported that they currently wanted a pregnancy. Motivations to not use condoms could be connected to positive thinking regarding partner preference, pleasure, love, and intimacy.

Condom non-/use and perceptions towards a pregnancy

Condom non-use included lack of knowledge of condoms, reference to using behavioural methods (e.g., withdrawal), wanting a pregnancy, and religious motivations. These explanations were not cited by any men who reported sometimes or always using condoms. For men who reported sometimes or always using, condoms were explicitly linked to pregnancy prevention. Frequently, these men also framed sex as inherently about reproduction. Men’s motivations for condom use centred the navigation of reproductive sex. Of the 39 men who reported always using condoms, 25 did so specifically to prevent a pregnancy, and 22 of 73 men who sometimes used condoms did so to prevent a pregnancy (Table 2). Qualitative interviews highlight the way that some men connected sex and reproduction explicitly:

R: Sex, sex, sex... I can't say sex is something for fun because it is through sex that we have children.

45-year-old, always uses condoms because “I [the respondent] don’t want any child now”

This respondent links sex specifically to reproduction (and, by extension, as not primarily for fun or pleasure) and explicitly ties his condom use to desires to avoid a pregnancy. The respondent indicates elsewhere that he does not believe his partner is using contraception, meaning that for him condoms are the main and only current contraceptive being used within his partnership. This explicit link between condom use and pregnancy and parenthood was made clear by a number of respondents:

R: Because I am not ready to be a father yet and don’t want the lady to get pregnant.

26-year-old, always uses condoms

R: It was in the beginning of our relationship when we did not want a child but when we were ready we stopped [using condoms]

30-year-old, sometimes uses condoms

Both men describe (not shown here) their partner’s contraceptive non-use as complementing their own condom use, illustrating the relationality of condom non-/use. They illustrate that condoms allow for the navigation of being ‘ready’ to be a parent, and how the acceptability of parenthood is temporal and dynamic. This includes that condom use is not consistent and can vary; while the second respondent describes stopping when ready for children, he reported that he still sometimes uses them. Boundaries between being ready or not ready for parenthood are also relational to some men’s expectations and socio-economic aspirations:

R: For me I would say you should be a university graduate... but if you are not even done and you have a skill or working fine.

28-year-old, sometimes uses condoms to prevent a pregnancy

This respondent highlighted his expectations of the socio-economics conditions a man should meet before he is ‘ready’ to have children. Thus, for some men, condom non-/use was not only about pregnancy prevention but also was a means to navigate gendered, masculine norms around fatherhood and parenting expectations.

Sex as pleasurable and condoms as barriers

For many men, condom non-use and sometimes-use were connected by motivations that centred around pleasure. Pleasure was discussed between men, with interactions between men shaping masculine norms around sex for pleasure. Reported conversations, particularly among younger men, centred around sex as pleasure and how this can be used as a mechanism for bragging between men. This creates new meanings around condom non-use, where sexual pleasure is a marker of masculinity and communicated through interactions with friends. Condom non-use becomes the way to earn these “bragging rights”:

R: The normal boys boys talk... chale [colloquialism and way of referring to a friend/acquaintance] yesterday I had sex with my girl it was so nice we enjoyed ourselves and all that, because of the pleasure...they think they have gained themselves bragging rights

20-year-old, never had sex

R: So far if they [male friends] are talking [about sex] I don't pay attention to them but one thing I have seen it that they can say stupid words like what is sweeter than a vagina?

22-year-old, sometimes uses condoms as he doesn't enjoy sex with it

23 of 123 men who reported never using condoms reported doing so because of reasons relating to pleasure and other sexual effects that they associated to condoms (Table 2). Meanings of condom non-/use that centre around pleasure are tied to conceptualisations of sex as a pleasurable activity:

R: ...like, let's do something enjoyable, so I see it to be something that we enjoy example when two young people eat together it is more enjoyable than one person eating alone.

22-year-old, sometimes uses condoms as he doesn't enjoy sex with it

I: What is your opinion about sex?

R: Sex is happiness / pleasure [minshæ]

21-year-old, sometimes uses condoms because of the relationship type

Similar to an earlier respondent's comments on the vaginas and sweetness, condom use was also associated with 'sweetness' – in which men saw condom use as antithetical to pleasurable sex:

R: It is not sweet at all using condom

28-year-old, never uses condoms

R: Because doing it raw [condomless] is much sweeter than using condom

22-year-old, never uses condoms

Both these respondents reported that their partners use contraception. This might indicate that motivations to not use condoms, driven by desires for more pleasurable experiences, are facilitated by the partner assuming contraceptive responsibility. Men privilege their pleasure, and their partners are potentially left to navigate pregnancy avoidance. This suggests a gendered power dynamic in which men's capacity to decide the type of sex they want and their decisions to not use condoms place a burden on their partners to navigate their own (non-reproductive) desires.

Condom non-/use and men's desires to meet their partner's wishes

Few men acknowledged women's sexual pleasure, with some mentioning that contraceptive decisions included what their partner found more pleasurable:

R: Because my girlfriend says I come [ejaculate] early when I use condom and she doesn't enjoy it.

Therefore, sometimes I don't use contraceptives.

32-year-old, sometimes uses condoms

While the respondent had a conversation with his partner around not using condoms, this man was not sure whether his partner uses contraception. This indicates that conversations around pleasure and contraception do not necessarily include discussion of contraceptive use by both sexual partners. Condoms assume meanings beyond fertility regulation and towards facilitating the expression of feelings that men had towards their sexual partners. This included how condom use impacted their ability to express love to their partners:

R: She feels detachment with the use of condoms and sometimes complains that it doesn't show love

27-year-old, sometimes uses condoms

R: It is because my ex-girlfriend thinks I don't love her when I use condom every time

27-year-old, sometimes uses condoms

For some men spontaneous sex was specifically the reason for their sometimes condom non-use.

R: ...but nowadays I don't use a condom. Because most times it (sex) happens spontaneously between us

28-year-old, sometimes uses condoms

For this respondent, condom non-/use was linked to the circumstantial nature of his and his partner's sexual activity. For the respondent, his partner never uses contraception (not shown here), and he reports that she thinks it is unnecessary for a monogamous relationship. Thus, not only is condom use tied to the realities of when and where a person is having sex, but it also ties to perceptions of monogamy within a relationship.

Trust, sexual stigma, and perceptions of STIs

Trust and love highlight the relational nature of sex. For many men, their condom use was motivated by who they were having sex with; trust was relational and embedded in concerns over not knowing if a sexual partner had other partners:

R: It was my first time having sex with her and I didn't know her that much at that time

20-year-old, sometimes uses condoms

R: If I do not trust her, I use condoms but for my girlfriend, I do not use a condom

20-year-old, sometimes uses condoms

R: There are some girls I do not trust so I use them but not with my girl when I had one

30-year-old, sometimes uses condoms

The respondents highlight that contraceptive use is tied to their perceptions of their sexual partner, as well as their own sexual experience and relationship development. Concerns over STIs are not only biomedical and related to specific transmission risk but also rooted in social constructions of trust. It shows the complex and multifaceted nature of sexual relationship development that survey questions on relationship type can only partially capture. For other men, trust is specifically tied to monogamy:

R: I don't use rubber because my girlfriend doesn't go anywhere. She is always at home.

23-year-old, never uses condoms

R: Because we are staying together and faithful

24-year-old, never uses condoms

Trust, therefore, is a relational construction and bound up in gendered notions of sex. During interviews, some men described their perception of women in the community enjoying sex more than they (men) thought was appropriate. This manifested in gendered sexual stigma towards women, who become labelled as promiscuous and less trustworthy:

R: Like I said at first when we were talking, there are some of the women that are sex maniacs [kakapiopio] they like having sex, if she doesn't have sex today she can't sleep

21-year-old, sometimes uses condoms because he is in a committed relationship

Men with multiple partners reported different condom non-/use depending on who the partner was. One 27-year-old man reported that he never used condoms with his 'baby mama' [mother of his child] because "I have a kid with her", while he sometimes uses with his girlfriend because "I know when she is with me she is mine, but once she steps out, she is not mine". His responses allude to an element of control around knowing a partner's whereabouts being tied to trust and sexuality. It also highlights the intersections between relationship type and parenting. Aligning to results in regression models (see Table 3 below), the man's status as a father was a reason for condom non-use, but this was specifically with the partner with whom he had a child. It highlights the complexity of parenting and the relational nature of condom non-/use.

Gendered sexual stigma intersects with respondent's perceptions of the connection between certain partners and risks of STIs. It highlights that relationship type might proxy for a trusting relationship, but for many men trust is more of a motivator for their condom non-/use than the label they gave their relationship. Concerns over STIs – particularly HIV – was a key motivator for men to use condoms. This was directly linked to the relation of partner a man had sex with. Partners who were unknown to the man or women who had multiple other sexual partners were framed as people with whom condom use was desirable:

R: Yeah, the boys especially, you see now HIV is real so I always tell my male friends HIV is real because who don't know who also have sex with that lady [ole mei babawoo in yeɔ lo ne – "you don't know whether a lot of people eat this fish / meat too"] and you don't know where she has been before coming to you

22-year-old, always uses condoms to protect against STIs and pregnancy

One respondent indicated that within his friendship group, contraceptive use was encouraged in specific circumstances. This included the description below, in which a man might have sex with someone they do not

know well after a night of drinking with friends. These circumstances elicited specific concerns over the potential of STI transmission:

R: We [he and his friends] normally focus on STIs... sometimes we are tipsy with alcohol we don't follow what we are supposed to do, we may aim that I would not engage in an unprotected sex with someone I don't know very well, who is a stranger to me but when we are drunk we will not be focusing on those things, we depart from that thing... we [men] normally help each other with condoms, if one doesn't have we help out.

40-year-old, sometimes uses condoms depending on if it is readily available at time of sex

The two respondents above highlight the role of social relationships as well as sexual relations in condom use. Condom use as a mechanism to navigate risk with specific types of partners – itself based on gendered assumptions of that partner – is constructed and communicated via friendship groups. It intersects how the circumstances of sex and the social situations in which a man might meet a sexual partner influence potential condom non-/use. It also further illustrates how condom use might be perceived within a relationship as men associating their partner with women stigmatised by men as less trustworthy or more likely to present risks.

Exploring condom non-/use through a novel set of masculinities variables

Qualitative responses indicate the potentially significant role that gendered norms around sex, sexuality, and reproduction can have in shaping the acceptability and motivations behind condom non-/use among men. Table 3 offers the results of the two regression models which incorporate the novel masculinities indicator that drew on data collected from the project survey instrument.

Table 3: Ordinal regression models for factors associated with condom non-/use among men

	Explanatory Variable	Model 1 OR (coeff, C.I)	Model 2 OR (coeff, C.I)
<i>Pregnancy Acceptable (ref No)</i>	Pregnancy is acceptable	---	0.12 *** (-2.14, -3.43 – -0.94)
<i>Age (ref 20-24)</i>	18-19	1.43 (0.36, -0.74 – 1.44)	1.58 (0.46, -1.09 – 2.03)
	25-29	1.21 (0.19, -0.59 – 0.97)	0.83 (-0.18, -1.43 – 1.02)

	30-39	0.77 (-0.26, -1.64 – 1.10)	0.53 (-0.63, -2.65 – 1.36)
	40+	2.48 (0.91, -0.62 – 2.41)	7.86 + (2.06, 0.06 – 4.09)
<i>Religious (ref No)</i>	Religious	5.42 + (1.69, 0.13 – 3.55)	35.20 ** (3.56, 1.35 – 6.33)
<i>Parenting (ref No)</i>	Parenting	0.06 *** (-2.89, -3.87 – -1.98)	0.04 *** (-3.22, -4.47 – -2.07)
<i>Relationship Type (ref Married)</i>	Longterm Partner / Fiancé	0.36 (-1.03, -2.67 – 0.56)	0.34 (-1.07, -3.23 – 1.02)
	Girlfriend	1.16 (0.15, -0.90 – 1.21)	1.29 (0.26, -1.14 – 1.66)
	Sexual Partner	6.78 + (1.91, 0.23 – 3.66)	5.36 (1.68, -0.30 – 3.78)
	Single	0.73 (-0.32, -1.49 – 0.85)	---
<i>Multiple Relationships (ref No)</i>	Multiple Relationships	1.91 (0.65, -0.28 – 1.58)	1.05 (0.05, -1.09 – 1.18)
<i>Working (ref No)</i>	Working	1.28 (0.24, -0.48 – 0.99)	1.83 (0.61, -0.42 – 1.68)
<i>Education (ref Senior Secondary)</i>	Primary	1.52 (0.42, -0.85 – 1.64)	2.30 (0.83, -1.09 – 2.85)
	Junior Secondary	0.88 (-0.13, -1.03 – 0.75)	0.52 (-0.65, -1.94 – 0.59)
	Higher	5.56 ** (1.72, 0.70 – 2.77)	4.03 (1.39, -0.23 – 3.05)
<i>Main Income (ref Respondent only)</i>	Respondent and others	0.95 (-0.05, -0.94 – 0.83)	1.12 (0.11, -1.12 – 1.32)
	Others	1.28 (0.25, -0.65 – 1.15)	4.49 + (1.50, 0.19 – 2.88)
<i>Partner Using Contraception (ref No)</i>	Yes	0.95 (-0.05, -0.94 – 0.82)	0.32 * (-1.15, -2.43 – 0.07)
	Don't know	0.49	1.08

	(-0.71, -1.58 – 0.16)	(0.08, -1.19 – 1.35)
<i>Wealth Index (ref Lower)</i>		
Middle	1.03 (0.03, -0.77 – 0.85)	5.30 ** (1.67, 0.35 – 3.06)
Higher	0.90 (-0.10, -1.11 – 0.92)	8.78 ** (2.17, 0.76 – 3.66)
<i>Masculinity (ref Not Important)</i>		
Individual factors important	1.25 (0.22, -0.62 – 1.08)	0.23 (-1.45, -2.93 – -0.06)
Interpersonal factors important	1.84 (0.61, -0.15 – 1.38)	1.74 (0.56, -0.58 – 1.70)
Familial / community factors important	0.81 (-0.21, -0.95 – 0.52)	0.27 ** (-1.32, -2.40 – -0.30)
Structural factors important	1.61 (0.47, -0.22 – 1.18)	0.82 (-0.20, -1.27 – 0.87)

Model 1 reports ordinal regression results for all men surveyed who had reported ever having had sex. Model 2 reports ordinal regression results for currently partnered men, which includes a variable for pregnancy acceptability.

Among all men who had ever had sex (Model 1), there were significant differences in condom use between men who were parenting compared to those who weren't, and men with higher education compared to those with senior secondary education. Men who were parenting were much less likely (OR 0.06) to be using condoms than men who were not parenting, while men with higher educational attainment were more likely to be using condoms than those with secondary senior educational attainment (OR 5.56).

Model 2 reports the odds ratios of using condoms among men who were currently partnered. This subgroup of men (n=173) was also asked about the acceptability of their partner becoming pregnant. Among these men, those who thought a pregnancy would be acceptable were less likely to be using condoms than those who thought a pregnancy would be unacceptable at time of interview (OR 0.12). In addition, men who were already parenting were less likely to use condoms than men who were not parenting (OR 0.04). Men who knew their partners were using contraception were less likely to use condoms than men who knew their partners weren't using contraception (OR 0.32).

Men who reported that someone other than themselves was the main source of household income were more likely to use condoms than men who reporting being the main source of household income (OR 4.49),

though this was only significant at the $p < 0.1$ level. Men who belonged in both the middle and higher wealth categories were more likely (OR 5.20, OR 8.78) than men who belonged to the lower wealth category to be using condoms.

Men who reported being in a relationship were less likely to use condoms if they reported believing that familial and community level factors were an important component of masculinities than if they did not (OR 0.27). This variable largely centred around provision of care by men to various members of their family, including partners, children, parents, and friends. The other three levels (individual, interpersonal, structural) of masculinity attributes did not have an association with condom use, although the individual was associated at a $p = 0.1$ significance level.

Among men with partners (Model 2), being aged 40+ (OR 7.86) and men who were religious were also associated with increased condom use (OR 35.20). The high OR, likely due to the small number of men over 40 and small number of men who report not being religious, means that these associations should be interpreted with caution.

The regression results suggest interlinking socio-economic and normative factors that shape condom non-/use, tying use to men's interactions with their broader contextual environments. Men who are less economically independent from others in their household alongside men who are more highly educated and wealthier were more likely to use a condom. Men who were already parenting or who believe a critical component of being masculine was familial and community care were less likely to report using condoms.

Discussion

Interrogating men's motivations for their condom non-/use provides critical insights into the ways in which condoms are tied to gendered and sexual constructions. The results trouble the assumptions that can be drawn from existing quantitative data collected with men. Where much of the data collected remain focused on the frequency of use and the biomedical outcomes associated with non-/use, particularly pregnancy and HIV prevention [59], these data highlight the need for more nuanced understandings of motivations to better meet men's desires and needs in service provision and policy.

Pregnancy prevention was a significant motivator among men who reported using condoms, especially those who reported 'always' using condoms. These motivations are currently captured in existing evidence production [25]. However, pregnancy prevention itself is a complex and nuanced motivation. Interview data

highlight how pregnancy prevention was tied to gendered expressions, meaning that condom use became tied to masculine norms. This connects men's socio-economic conditions to their condom non-/use, including significant associations depending on whether men were the main earner in their household, their relative wealth, and their educational attainment. These factors are tied to constructions of 'readiness' [58, 60], which men describe in interviews. These socio-economic conditions that shape condom non-/use are also tied to contextual masculine norms around the 'breadwinner' model of being able to provide financially for a family [46, 61].

Further motivations around condom non-/use highlight the paucity of relevant evidence currently collected in largescale quantitative instruments. Men's desired outcomes of sex – pleasure, reproduction, to convey love and intimacy – were intertwined with their motivations for condom non-/use which were simultaneously relational. Men's experiences and perceptions illustrate the ways in which interactions and perceptions of trust and risk were tethered to the type of relationship(s) a man was in as well as their perceptions of their sexual partner(s). Condoms are conceptualised by some men as a barrier to expressing love, and condom non-use has important implications for men's navigation of their relationships. This includes becoming connected to expressions of stigmatising beliefs and attitudes within sexual relationships [15].

Where data in key condom-related evidence focuses on whether a sexual couple are protected from pregnancy or STI [59, 62, 63], critical power dynamics might be minimised. This study illustrates that relationship type may be a limited proxy for understanding motivations for condom non-/use, which are shaped by trust, love, pleasure, intimacy, and control. These meanings were developed through interactions both with partners and with friends and other men in the community. The findings advance existing evidence from that the perception of the relationship – understood through the lens of commitment, trust and communication – can be significant in shaping contraceptive use and acceptability [64]. The recent National Gender Policy in Ghana recognised the need to teach “*age-appropriate education to girls and boys on sexuality and reproductive health and rights in school curricula, including issues of gender relations and responsible sexual behaviour*” – [48]. In order to effectively collect evidence that can meaningfully engage with these gender relations, more questions are needed on relationships and constructed gendered sexual behaviours.

Men's perceptions of ideal masculine attributes and the role of masculine norms and expectations were particularly significant, and emphasises the importance for SRH policies and services to recognise men as gendered and reproductive beings [65]. Men who felt these masculine norms were important to them were less likely to use condoms than those men who may perceive these masculine expectations as less important. Men's lower use of condoms may be indicative of their desire to create a context in which they can display these masculine qualities. Not using condoms might be a form of expressing care to a partner's emotional wellbeing and

relationship desires, while having children provides a way in which men are able to prove their capacity to care for their families and meet the masculine expectations that they identify as critically important. Evidence of the intertwining nature of masculine ideals and reproduction has been highlighted elsewhere in Ghana, as well as Nigeria, and this study develops how this specifically and directly intersects with motivations to use condoms among men [45, 46, 66]. Including the role of masculinities and the relationship these have to broader systems and structures is therefore a critical component of a comprehensive, holistic, and positive SRHR agenda [67].

Limitations

The data in this study are exploratory and developed concurrently. This meant that data collected in the survey were not analysed prior to the development of the interview instrument. Thus, the two were unable to inform one another. This allows for data to show greater complexity and nuance by emphasising the differences between responses to different instruments, it means that some concepts and motivations that emerged in one tool were unable to be examined via the other. Moreover, a skip pattern error within the survey meant that men who were not currently in relationships were not asked about their attitude towards pregnancy. This provides a pathway for future studies to explore attitudes towards pregnancy among men who are sexually active outside of a relationship.

Conclusion

Ghana's National Health Policy references SRHR in relation to promoting "safe and responsible sexual behaviour" [49]. The policy sub-objective recognises the:

...broader context of personal lifestyle, the economic circumstances, employment, living conditions, family environment and gender relationships including traditional and legal structures in which individuals live – [49].

Current evidence production falls far short of understanding condoms within these broader contexts. This significantly limits the capacity for evidence to be generated that can meaningfully inform the stated aims and objectives of SRHR policies and programmes.

Demographic and public health survey research provides critical and important macro-level data on condom non-/use. Grappling more with men as gendered and reproductive within survey design and questions will advance the detail and nuance of data and analyses. Condom non-/use should be understood more holistically

and located within sex as pleasure, love, intimacy, trust, and spontaneity. It is important that data collection tools gather evidence on non-risk-based attitudes and behaviours towards condoms. While pregnancy prevention and STI-risk reduction are important factors, incorporating broader motivations could contribute to iterating and generating more effective and relevant policies and programmes.

Attitudes and meanings around condoms are not static or singular, but rather reflect personal, interpersonal, and community interactions, expectations, and norms. Where survey data captures information on attitudes and behaviours, ensuring that this is relational and asked for each sexual partner a person has could help illuminate how condom non-/use manifests differently across relationships. Examining how men conceptualise their condom use in relation to their sexual lives and their gendered realities is necessary to create more meaningful SRH programmes and policy that meets men where they are.

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