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THE EFFECTIVENESS OF WHATSAPP GROUPS AS A COMMUNITY ENGAGEMENT TOOL

A Cross-Sectional Survey Study

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ABSTRACT

Purpose WhatsApp has become one of the most widely used instant messaging platforms for informal community organisation, yet empirical evidence on how its group functionality actually performs as a community engagement tool remains limited, particularly outside the political-mobilisation and misinformation literatures that dominate current research. This study examined the effectiveness of WhatsApp groups as a community engagement tool using a cross-sectional survey of 51 members drawn from residential, professional, school/alumni, family, religious, and market-based WhatsApp groups.

Methods Respondents rated their groups on informational value, sense of belonging and social connectedness, participation and collective action, negative experiences (message overload, spam, and conflict), and administrator moderation and trust, alongside an overall effectiveness rating. Composite reliability for all constructs was acceptable to excellent (Cronbach's alpha = .84–.93).

Results Descriptive results showed generally favourable perceptions of information value (M = 3.92, SD = 1.02) and moderation/trust (M = 4.05, SD = 1.06), moderate belonging and participation scores, and comparatively low negative-experience scores (M = 2.67, SD = 1.20). Spearman correlations indicated that moderation and trust ($r = .49$, $p < .001$), informational value ($r = .47$, $p = .001$), and participation/collective action ($r = .45$, $p = .001$) were the strongest correlates of overall effectiveness, while negative experiences showed no significant association ($r = -.11$, $p = .441$). Overall, 86.3% of respondents rated their group as effective or very effective, and all respondents (100%) said they would recommend WhatsApp groups for community organising.

Conclusions Qualitative responses reinforced these patterns, foregrounding speed and reliability of information and a sense of connectedness as core benefits, and message overload, spam, and weak moderation as recurring limitations. The findings extend Uses and Gratifications and social capital perspectives to the Nigerian/African WhatsApp context and offer practical implications for group administrators and community organisations seeking to use WhatsApp deliberately rather than incidentally as an engagement infrastructure.

Keywords: *WhatsApp groups; community engagement; social capital; uses and gratifications; instant messaging; social media; Nigeria.*

How to Cite

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1. INTRODUCTION

Instant messaging applications have reshaped the infrastructure of everyday community life, and none more so in the Global South than WhatsApp. With its low data requirements, end-to-end encryption, and near-universal presence on entry-level smartphones, WhatsApp has become the de facto communication backbone for families, workplaces, religious congregations, school and alumni networks, residential associations, and market or trade groups across Africa (Cheeseman et al., 2020; Pindayi, 2016). Unlike open, broadcast-oriented platforms such as Facebook or X (formerly Twitter), WhatsApp groups are semi-closed, high-trust spaces bounded by existing phone-contact relationships, which gives them a distinctive character as sites of community engagement: they are simultaneously intimate and capable of rapid, large-scale information diffusion (Colom, 2021; N. Pang et al., 2020).

Community engagement itself is a contested but well-theorised construct, broadly understood as the process by which individuals become informed about, connected to, and actively involved in the concerns of a defined community, whether geographic, professional, or associational (Head, 2007; Talò, 2024). Effective community engagement has been linked to stronger local governance, collective problem-solving, and social cohesion (Schiavo, 2021; Weger et al., 2018). The rise of mobile instant messaging raises an important empirical question: can a platform designed primarily for interpersonal chat meaningfully substitute for, or supplement, the traditional infrastructures of community engagement, such as town-hall meetings, newsletters, or radio broadcasts?

A growing body of research suggests that the answer is qualified. On one hand, WhatsApp groups have been documented to strengthen bonding and bridging social capital (Bano et al., 2019; Pang, 2022), support disaster resilience and mutual aid (Chu et al., 2020; You et al., 2023), sustain professional communities of practice (Kimotho, 2025; Mbada et al., 2023), and extend civic participation among groups that are otherwise hard to reach through formal channels (N. Pang et al., 2020; Uwalaka & Nwala, 2023). In the Nigerian context specifically, WhatsApp has been shown to matter for political organising (Fisher et al., 2023), health communication (Garba et al., 2022; Makinde et al., 2020), women's empowerment (Abubakar & Dutton, 2018), and higher-education support (Elom et al., 2025; Madge et al., 2019). On the other hand, the same affordances that make WhatsApp groups useful, namely low barriers to posting, high message velocity, and weak centralised moderation, have also been implicated in information overload and group fatigue (Fu et al., 2020; Sun et al., 2021; Tang et al., 2024), the rapid circulation of misinformation and rumour (Kalogeropoulos et al., 2023; Malhotra, 2023; Mudavadi et al., 2024), and unresolved interpersonal conflict (Garcia, 2021).

Much of the existing empirical literature on WhatsApp and engagement has concentrated on two extremes: large-scale computational studies of political misinformation in Brazil and India (Kalogeropoulos et al., 2023; Malhotra, 2023), and small qualitative case studies of a single group or organisation (Chandler, 2025; Cronje et al., 2022; Kimotho, 2025). Comparatively little survey-based evidence exists on how everyday, non-political WhatsApp group members themselves evaluate the effectiveness of their groups as engagement tools across multiple group types, and fewer still examine this question in the Nigerian context, despite Nigeria being one of WhatsApp's largest markets in Africa (Cheeseman et al., 2020). This study addresses that gap. Guided by Uses and Gratifications Theory (Katz-inspired frameworks operationalised in Ifinedo, 2016; Quan-Haase & Young, 2010; Whiting & Williams, 2013) and social capital theory (Bano et al., 2019; Pang, 2022), the study asks: (1) how do members perceive the informational, relational, participatory, and moderation-related value of their WhatsApp groups; (2) what negative experiences do members report; and (3) which of these dimensions is most strongly associated with members' overall rating of group effectiveness as a community engagement tool?

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Uses and Gratifications Theory and Instant Messaging

Uses and Gratifications Theory (UGT) frames media users as active agents who select and use communication channels to satisfy specific social and psychological needs, including information seeking, social interaction, entertainment, and self-expression (Whiting & Williams, 2013). Applied to social networking and messaging platforms, UGT has consistently identified informational utility, interpersonal connectivity, and social enhancement as central gratifications sought by users (Bhatiasevi, 2024; Ifinedo, 2016). Quan-Haase and Young (2010) directly compared Facebook and instant messaging and found that while Facebook gratifies users chiefly through entertainment and social surveillance, instant messaging is oriented more strongly toward relationship maintenance and development, a distinction that is directly relevant to WhatsApp groups, which combine features of both broadcast and interpersonal media. The present study operationalises several of these gratifications, informational value, social connectedness, and participation, as measurable dimensions of perceived group effectiveness.

2.2 Social Capital and Community Engagement Online

Social capital theory distinguishes bonding capital (ties among similar, close-knit individuals) from bridging capital (ties across more heterogeneous networks), both of which have been linked to WhatsApp use (Bano et al., 2019; Pang, 2022). WhatsApp groups appear particularly well suited to generating bonding capital because membership is typically based on pre-existing offline relationships, such as neighbours, coworkers, classmates, or relatives, which the platform then intensifies through frequent, low-cost contact (Chandler, 2025; Pindayi, 2016). This bonding function has been shown to translate into pro-community behaviour: You et al. (2023) found that residents' WeChat group use predicted pro-community behaviour through the mediating roles of community trust and community attachment, while Chu et al. (2020) documented how WeChat-based social messaging helped a minority immigrant community mobilise bonding, bridging, and linking capital during Hurricane Harvey. Community engagement theory further specifies that engagement is not a single behaviour but a continuum from being informed, through participating, to co-owning decisions and outcomes (Head, 2007; Talò, 2024). This study's four positive constructs, informational value, belonging, participation, and moderation/trust, map onto this continuum from awareness to active involvement.

2.3 WhatsApp Groups and Community Engagement in the Global South

In sub-Saharan Africa, WhatsApp's dominance is driven by its low data cost and offline-first design, making it the primary, and sometimes only, digital communication channel available to many households (Pindayi, 2016). Beyond personal messaging, WhatsApp groups have become vehicles for agricultural knowledge exchange and market coordination (Kimotho, 2025), rural community health work (Pimmer et al., 2017), professional peer support (Mbada et al., 2023), higher-education learning support (Elom et al., 2025; Madge et al., 2019), and political mobilisation (Fisher et al., 2023). In Nigeria specifically, Cheeseman et al. (2020) characterised WhatsApp as a "disruptive technology" in the 2019 general elections, simultaneously democratising and destabilising political communication, while Uwalaka and Nwala (2023) showed that WhatsApp and Facebook use significantly predicted participation in the 2020 #EndSARS protests. Beyond politics, WhatsApp has been documented as an effective channel for disseminating COVID-19 and general health information among Nigerian journalists and residents (Garba et al., 2022; Makinde et al., 2020) and for empowering Nigerian women's economic and social participation (Abubakar & Dutton, 2018). These studies collectively suggest that WhatsApp groups function as a form of everyday, informal community infrastructure in the Nigerian setting, but almost none of them directly measure members' own evaluation of group effectiveness across the range of group types examined here.

2.4 The Double-Edged Nature of Group Messaging: Overload, Misinformation, and Moderation

The same low-friction posting that makes WhatsApp groups valuable for rapid information sharing also generates costs. A well-established stressor-strain-outcome literature shows that information overload, communication overload, and system-feature overload are reliable predictors of social media fatigue and discontinuance intention (Fu et al., 2020; Lee et al., 2016; Sun et al., 2021). Tang et al. (2024) extended this to group-specific contexts, finding that information overload, information irrelevance, and value misfit among group members drive fatigue and the intention to mute or leave educational WhatsApp/social groups, a dynamic mirrored in this study's negative-experience items. Group

messaging has also attracted scrutiny for its role in spreading misinformation: Kalogeropoulos et al. (2023) found that WhatsApp groups with weak or absent social ties were associated with greater exposure to and belief in misinformation, while Malhotra (2023) and Mudavadi et al. (2024) documented the relational difficulty of correcting misinformation shared by trusted contacts or elders within family and community groups. Countervailing this risk, Kligler-Vilenchik (2021) and Chadwick and Vaccari (2023) showed that strong group norms, active moderation, and member-initiated "group rules" can foster collective fact-checking and reduce the spread of poor-quality information. This body of work underscores why administrator moderation and member trust in leadership are treated in the present study as a distinct, theoretically important construct rather than folded into general "participation."

2.5 Research Gap

Taken together, the literature establishes that WhatsApp groups can support informational access, social capital, and collective action, but are also vulnerable to overload, conflict, and misinformation, and that administrator moderation appears to be a pivotal moderating factor. However, most quantitative work on WhatsApp and engagement is either platform-level and computational (focused on message content and network structure; e.g., Kalogeropoulos et al., 2023) or narrowly focused on a single professional or activist group (e.g., Kimotho, 2025; Mbada et al., 2023). Survey-based, member-reported evaluations that simultaneously capture informational, relational, participatory, negative, and moderation-related dimensions of WhatsApp group effectiveness, across a naturalistic mix of group types and within a Nigerian/African setting, remain scarce. This study addresses that gap by surveying members across seven group types (professional, school/alumni, family, residential, religious, market, and other) and examining which dimensions of group experience best predict members' own effectiveness judgements.

3. METHODOLOGY

3.1 Research Design

This study adopted a quantitative, cross-sectional survey design, appropriate for capturing a snapshot of members' perceptions and experiences of WhatsApp groups at a single point in time (Colom, 2021; Manji et al., 2021). A structured, self-administered online questionnaire was distributed and completed via Google Forms, consistent with established practice for reaching WhatsApp-using populations directly through the medium under study (Manji et al., 2021).

3.2 Population and Sampling

The target population comprised active members of WhatsApp groups spanning residential/neighbourhood communities, professional/work groups, school or alumni networks, family groups, religious groups, and market/trade associations. A non-probability convenience and snowball sampling approach was used: the questionnaire link was circulated through WhatsApp groups and personal networks, and respondents were asked to answer with reference to the single WhatsApp group they consider most relevant to them. This sampling approach is consistent with prior WhatsApp-based survey research, which similarly relies on platform-native distribution to reach naturally occurring group members (Garcia, 2021; Manji et al., 2021). A total of 51 valid responses were obtained and retained for analysis after removing incomplete or non-consenting submissions.

3.3 Instrumentation

The questionnaire comprised four sections: (a) demographic and group-membership characteristics (age range, gender, highest education, occupation, group type, membership duration, checking frequency, and posting frequency); (b) fourteen Likert-scale items (1 = strongly disagree/very poor to 5 = strongly agree/very good) organised into five researcher-defined constructs, informational value (3 items), sense of belonging/social connectedness (3 items), participation and collective action (3 items), negative experiences relating to overload, spam, and conflict (3 items), and administrator moderation and trust (2 items); (c) a single-item global rating of overall group effectiveness (very ineffective to very effective) and a yes/no item on whether the respondent would recommend WhatsApp groups for community organising; and (d) three open-ended questions asking respondents what they valued most about the group, what challenges they had experienced, and what improvements they would suggest. Item wording drew conceptually on prior UGT- and social-capital-oriented WhatsApp/WeChat research (Bano et al., 2019; Pang, 2022; Tang et al., 2024).

3.4 Data Collection Procedure

Data were collected electronically over a single data-collection window. Participation was voluntary and

anonymous; no personally identifying information was required, although respondents were given the option to indicate interest in co-authorship. Respondents were instructed to answer all Likert items with a specific WhatsApp group in mind, selected at the outset of the questionnaire, to avoid conflating experiences across multiple, dissimilar groups.

3.5 Data Analysis

Quantitative data were analysed using descriptive statistics (frequencies, percentages, means, and standard deviations) for demographic variables and individual Likert items. The five theorised constructs were tested for internal consistency using Cronbach's alpha, and composite (mean) scores were computed for each construct where alpha exceeded the conventional .70 threshold (Ifinedo, 2016). Because the outcome variable (overall effectiveness) was ordinal, Spearman's rank-order correlation was used to examine associations between each construct and overall effectiveness. Group-type differences in mean effectiveness were examined descriptively. Open-ended responses were analysed using inductive qualitative content analysis, in which responses were read, coded for recurring ideas, and grouped into themes, an approach consistent with prior mixed-methods WhatsApp research (Tang et al., 2024).

3.6 Ethical Considerations

Participation was voluntary and based on informed consent communicated at the start of the questionnaire. No identifying data (names or phone numbers) were mandatorily collected; an optional co-authorship contact field was provided solely for respondents who wished to be considered as collaborators. Responses were anonymised prior to analysis, and all data were stored and analysed in aggregate form only.

3.7 Limitations

The convenience and snowball sampling strategy, combined with a modest sample size (N = 51), limits the statistical power and generalisability of the findings; the sample also skews toward professional/work (41.2%) and school/alumni (33.3%) groups, with residential, religious, family, and market-based groups comparatively underrepresented. Because the questionnaire was distributed via WhatsApp and online networks, the sample is likely biased toward more digitally active, higher-education respondents (51.0% held a Bachelor's degree and 47.1% a postgraduate degree), which may inflate perceived effectiveness relative to the general population of WhatsApp users. The cross-sectional design also precludes causal inference regarding the direction of relationships between, for example, moderation quality and perceived effectiveness.

4. RESULTS

4.1 Sample Characteristics

Table 1 summarises the demographic and group-membership characteristics of the 51 respondents. The sample was predominantly aged 25–34 years (62.7%) and male (60.8%), with the remainder in the 35–44 (27.5%), 18–24 (5.9%), and 45–54 (3.9%) age brackets. Respondents were highly educated, with 51.0% holding a Bachelor's degree and 47.1% a postgraduate degree. The most common group type was professional/work groups (41.2%), followed by school/alumni groups (33.3%), family groups (7.8%), residential/neighbourhood communities and other groups (5.9% each), religious groups (3.9%), and market/trade associations (2.0%). Over half of respondents (51.0%) had belonged to their group for more than three years, and a majority (64.7%) checked their group several times a day, though active posting was less frequent: only 33.3% posted daily, while 19.6% rarely or never posted, indicative of a broader "lurker" pattern common to group-based social media.

Characteristic	Category	n	%
Age range	18–24	3	5.9
	25–34	32	62.7
	35–44	14	27.5
	45–54	2	3.9
Gender	Male	31	60.8
	Female	20	39.2
Highest education	Bachelor's degree	26	51.0
	Postgraduate degree	24	47.1
	Diploma/NCE	1	2.0

Characteristic	Category	n	%
WhatsApp group type	Professional/work group	21	41.2
	School/alumni group	17	33.3
	Family group	4	7.8
	Residential/neighbourhood community	3	5.9
	Other	3	5.9
	Religious group	2	3.9
	Market/trade association	1	2.0
Membership duration	More than 3 years	26	51.0
	1–3 years	16	31.4
	6 months–1 year	8	15.7
	Less than 6 months	1	2.0
Checking frequency	Several times a day	33	64.7
	A few times a week	9	17.6
	Once a day	8	15.7
	Rarely	1	2.0
Posting frequency	Daily	17	33.3
	Weekly	16	31.4
	Rarely/Never	10	19.6
	Monthly	8	15.7

Table 1. Demographic and group-membership characteristics of respondents (N = 51).

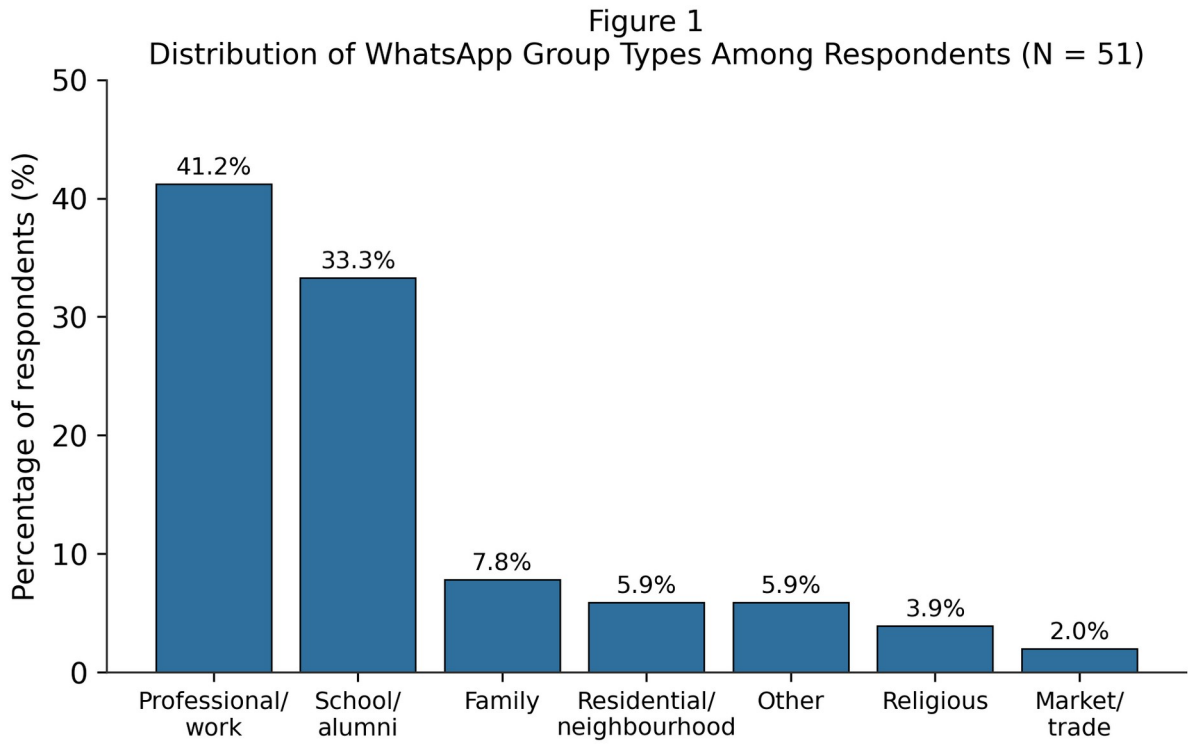


Figure 1. Distribution of WhatsApp group types among respondents (N = 51).

4.2 Purpose of Group Use

Respondents could select multiple purposes for their group use (Table 2). Sharing news and updates was the dominant use case, selected by 78.4% of respondents, followed by social interaction/chit-chat (39.2%), coordinating events or activities (35.3%), seeking help or support (25.5%), and

business/commercial purposes and conflict resolution/community issues (19.6% each). This pattern is consistent with prior findings that WhatsApp groups are used primarily as informational and coordination tools, with social and instrumental uses layered on top (Cronje et al., 2022; N. Pang et al., 2020).

Purpose	n	%
Sharing news/updates	40	78.4
Social interaction/chit-chat	20	39.2
Coordinating events or activities	18	35.3
Seeking help/support	13	25.5
Business/commercial purposes	10	19.6
Conflict resolution/community issues	10	19.6

Table 2. Purposes of WhatsApp group use (multiple responses permitted, N = 51).

Figure 2
Purposes of WhatsApp Group Use (Multiple Responses Permitted, N = 51)

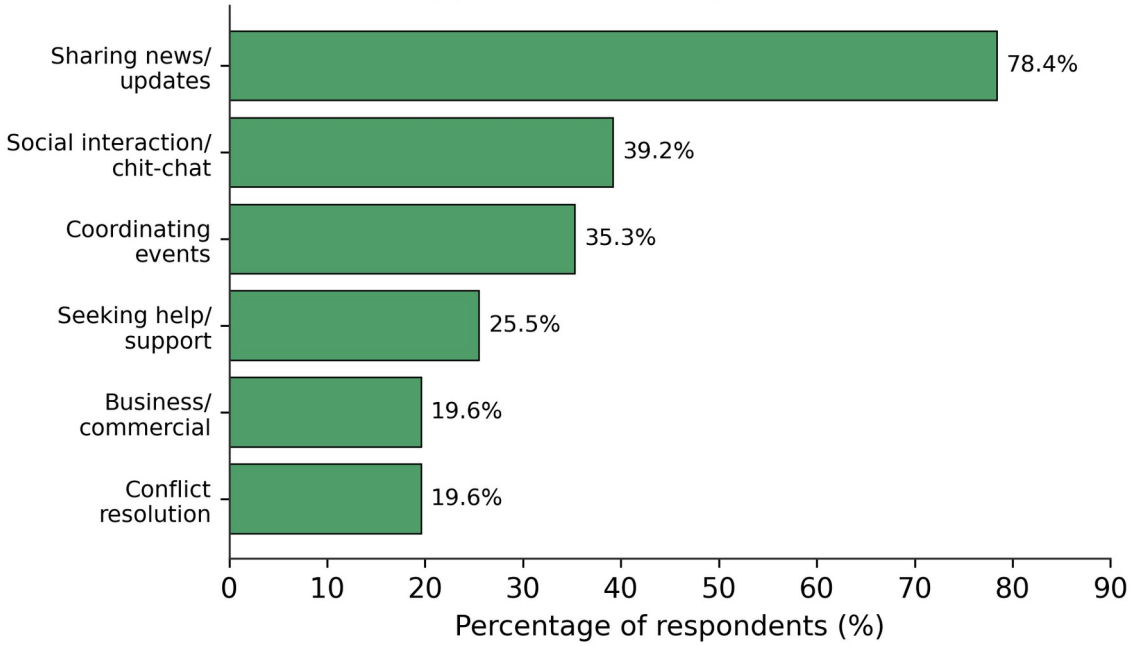


Figure 2. Purposes of WhatsApp group use, multiple responses permitted (N = 51).

4.3 Descriptive Statistics and Construct Reliability

Table 3 presents item-level means and standard deviations for the fourteen Likert items. Ratings were generally favourable for informational and moderation-related items (all M > 3.7), moderate for belonging and participation items, and notably lower for negative-experience items relating to spam and conflict (M = 2.43–2.49), although perceived message-volume overwhelm was rated higher (M = 3.10).

Construct	Item	M	SD
Informational value	Helps stay informed about community matters	4.10	1.12
	Information shared is accurate and reliable	3.92	1.09
	Urgent information reaches me faster than other channels	3.75	1.18
Belonging/connectedness	Strengthened my sense of belonging to the community	3.80	1.13
	Feel more connected to other members	3.73	1.23

Construct	Item	M	SD
	Helped build new relationships/friendships	3.69	1.17
Participation/collective action	Members actively participate in discussions	3.76	1.14
	My opinions are valued when I contribute	3.76	0.91
	Encourages collective action (contributions, projects)	3.96	0.96
Negative experiences	Disrupted by irrelevant messages or spam	2.49	1.36
	Conflicts/disagreements are difficult to manage	2.43	1.30
	Sometimes feel overwhelmed by message volume	3.10	1.37
Moderation & trust	Administrator(s) manage the group effectively	4.02	1.17
	I trust the leadership/moderation of this group	4.08	1.02

Table 3. Item-level descriptive statistics (N = 51, 1–5 scale).

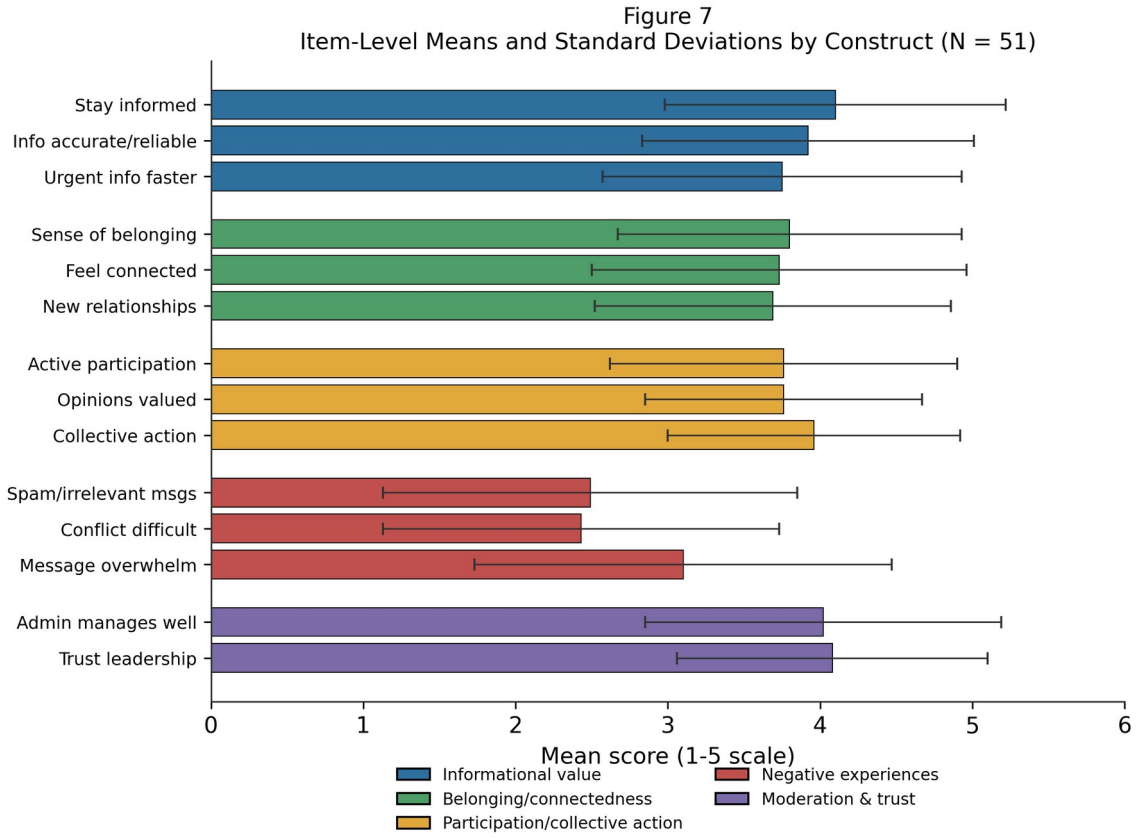


Figure 7. Item-level means and standard deviations by construct (N = 51, 1–5 scale).

All five constructs demonstrated acceptable-to-excellent internal consistency (Table 4): moderation and trust (alpha = .93), informational value (alpha = .89), negative experiences (alpha = .87), belonging/connectedness (alpha = .84), and participation/collective action (alpha = .84), supporting the use of composite scores in subsequent analyses.

Construct	Items	Cronbach's alpha	M	SD
Informational value	3	0.89	3.92	1.02

Construct	Items	Cronbach's alpha	M	SD
Belonging/social connectedness	3	0.84	3.74	1.03
Participation/ collective action	3	0.84	3.83	0.88
Negative experiences (overload/conflict)	3	0.87	2.67	1.20
Moderation & trust	2	0.93	4.05	1.06

Table 4. Construct reliability and composite descriptive statistics.

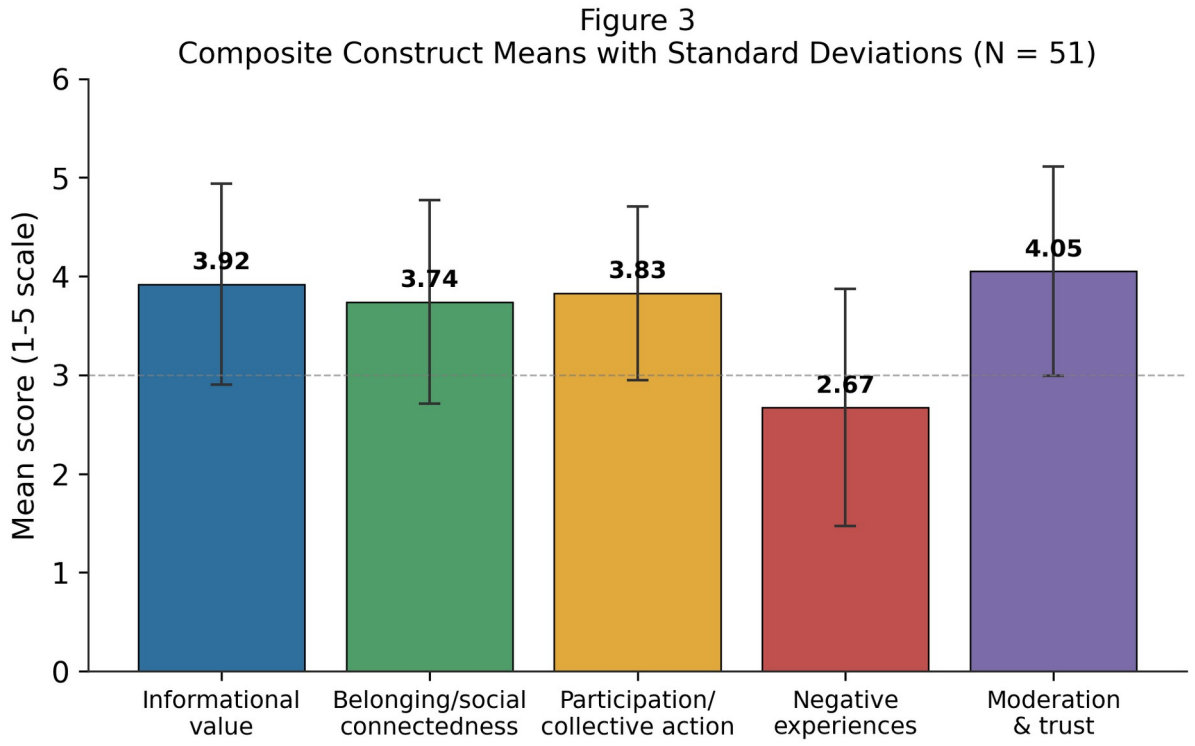


Figure 3. Composite construct means with standard deviations (N = 51, 1–5 scale).

4.4 Overall Effectiveness and Willingness to Recommend

On the single-item global rating, 35.3% of respondents rated their WhatsApp group as "very effective" and 51.0% as "effective," jointly representing 86.3% of the sample; 9.8% were neutral, and 3.9% rated their group "very ineffective" (no respondent selected "ineffective"). Notably, all 51 respondents (100%) indicated they would recommend WhatsApp groups as a tool for community organising, even where individual group experiences were mixed, suggesting that confidence in the underlying medium exceeds satisfaction with any single group's execution.

Mean effectiveness varied descriptively by group type, from 3.88 (school/alumni groups) to 4.50 (family and religious groups), with professional/work groups at 4.19 and residential/neighbourhood and "other" groups at 4.33. Given the small cell sizes for several group types (e.g., n = 1 for market/trade associations), these differences should be interpreted cautiously and are reported descriptively rather than tested for statistical significance.

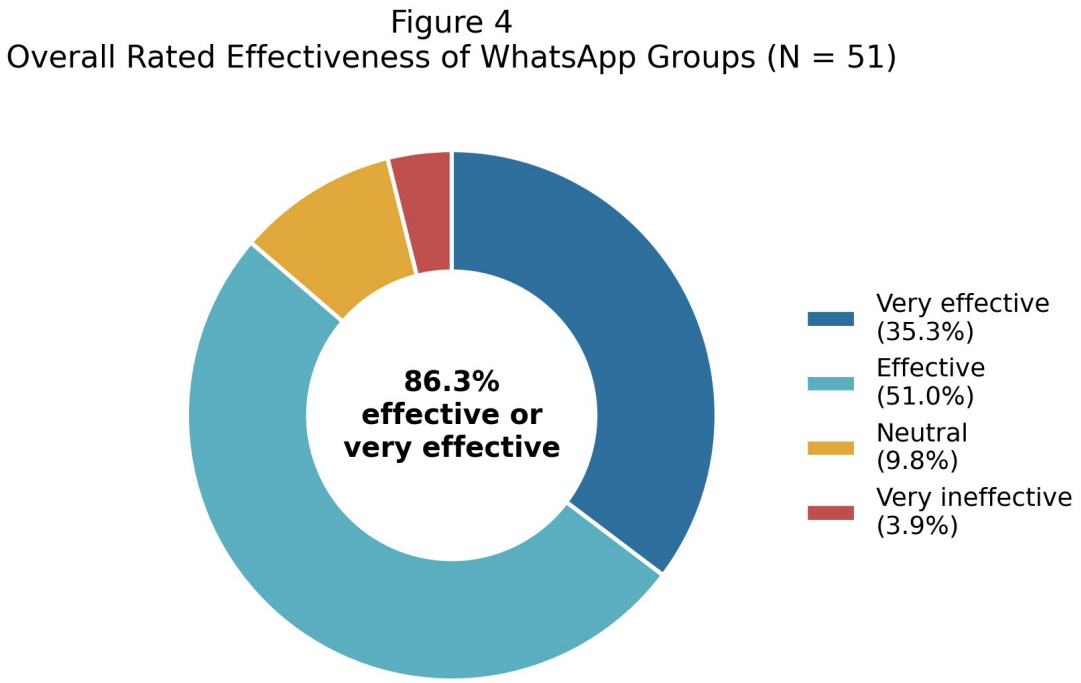


Figure 4. Overall rated effectiveness of WhatsApp groups as a community engagement tool (N = 51).

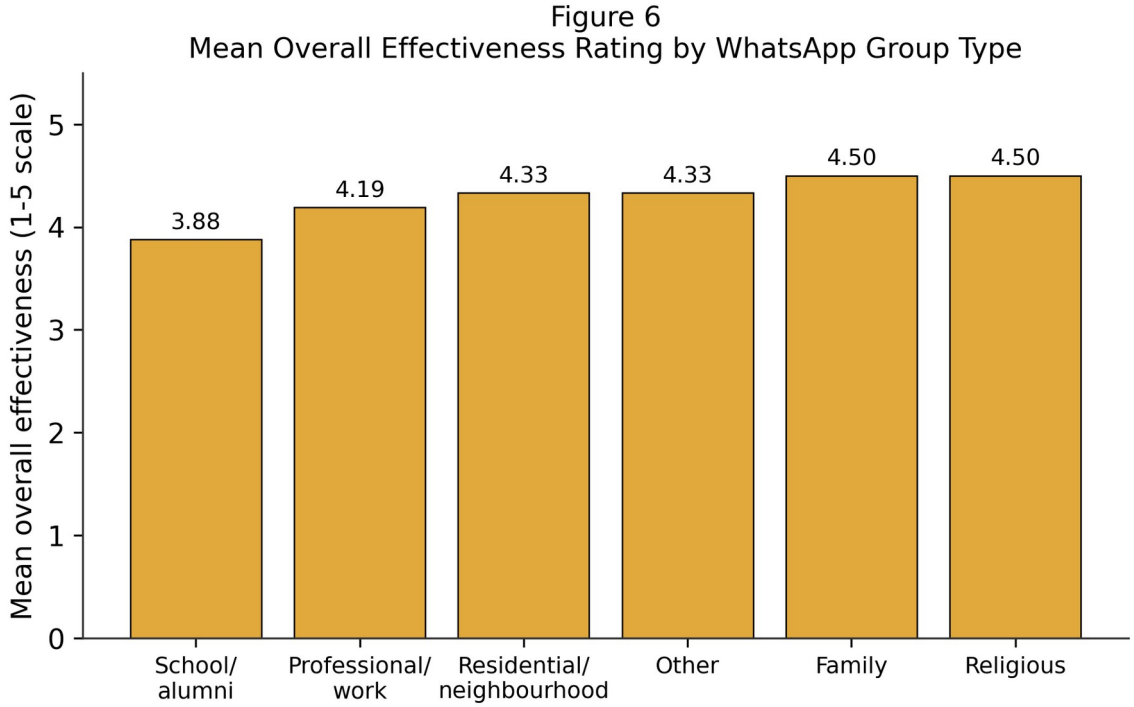


Figure 6. Mean overall effectiveness rating by WhatsApp group type. Interpret with caution given small cell sizes for some group types (e.g., n = 1 for market/trade associations).

4.5 Correlates of Overall Effectiveness

Spearman rank-order correlations (Table 5) showed that moderation and trust was the strongest correlate of overall effectiveness ($r = .49$, $p < .001$), followed closely by informational value ($r = .47$, $p = .001$) and participation/collective action ($r = .45$, $p = .001$). Belonging/connectedness showed a smaller but still significant positive association ($r = .29$, $p = .036$). Negative experiences (overload, spam, conflict) showed no statistically significant association with overall effectiveness ($r = -.11$, $p = .441$), suggesting that, within this sample, members' effectiveness judgements were driven more strongly by what the group delivers (information, participation, trustworthy moderation) than by the frictions members tolerate

along the way. A supplementary analysis found that checking frequency was significantly, though moderately, associated with the belonging/connectedness composite (r = .35, p = .011), consistent with a habitual-use pathway to social connectedness.

Construct	rs	p
Moderation & trust	0.49	< .001
Informational value	0.47	0.001
Participation/collective action	0.45	0.001
Belonging/social connectedness	0.29	0.036
Negative experiences (overload/conflict)	-0.11	0.441

Table 5. Spearman correlations between construct composites and overall effectiveness.

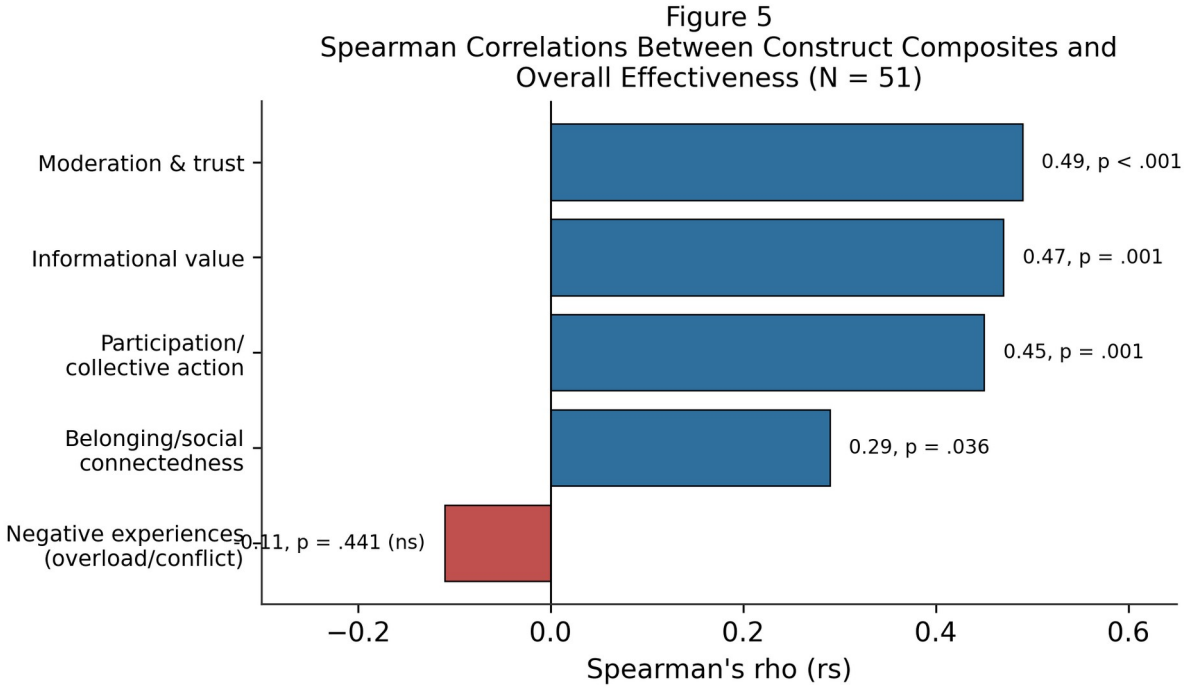


Figure 5. Spearman correlations between construct composites and overall effectiveness (N = 51). Bars extending right indicate positive association with effectiveness; the negative-experiences composite showed no significant association.

4.6 Qualitative Themes from Open-Ended Responses

Three inductive themes emerged from responses to "What do you find most valuable about being a member of this WhatsApp group?" First, speed and reliability of information dominated responses, with members repeatedly describing the group as offering "fast," "prompt," and "timely" access to information they would otherwise miss ("information gets to users quickly," "up to date information and timely response potential is greatly enhanced"). Second, several respondents emphasised relational value, describing the group as helping them "stay connected with people I ordinarily wouldn't have been able to see" and fostering a sense of being "part of a likeminded family." Third, a smaller number of responses highlighted instrumental/professional benefits, such as building confidence in writing and publications, or meeting "business minds" for professional referrals.

Responses to the challenges question clustered around three related problems that mirror the quantitative negative-experience construct: message overload ("too many messages," "loads of messages relevant and irrelevant"), moderation gaps (uneven enforcement of posting rules, admin-only information flow in some groups, and difficulty resolving conflict), and uneven participation (some members rarely engaging, or discussions skewing toward a narrow set of topics or disciplines). Suggestions for improvement directly targeted these problems: respondents called for clearer group rules, more consistent enforcement by administrators, restricting or filtering irrelevant content, and creating more structured opportunities for interaction (e.g., "timed activities," scheduled discussions). This

convergence between the qualitative suggestions and the quantitative finding that moderation/trust was the strongest correlate of effectiveness reinforces the centrality of administrator practice to how members judge their groups.

5. DISCUSSION

This study set out to examine how members of WhatsApp groups evaluate their groups as tools for community engagement, and which dimensions of group experience most strongly predict that evaluation. Three findings stand out. First, members' effectiveness judgements were driven primarily by what the group delivers, informational value, opportunities for participation, and trustworthy moderation, rather than by the frictions they tolerate along the way. This is broadly consistent with Uses and Gratifications research showing that gratification obtained (informational and relational) is a stronger predictor of continued engagement than the presence of costs such as overload (Bhatiasevi, 2024; Ifinedo, 2016; Whiting & Williams, 2013). It also extends prior WhatsApp-specific findings: Cronje et al. (2022) similarly found that a learning-focused WhatsApp community was judged positively despite administrative "noise," and Kimotho (2025) found that Kenyan agricultural WhatsApp group members tolerated connectivity and content-relevance problems because the informational and networking benefits outweighed them.

Second, the strength of the moderation-and-trust correlation ($r = .49$) aligns closely with the misinformation and group-management literature, which consistently identifies administrator practice and group norms as pivotal to how members experience a group (Chadwick & Vaccari, 2023; Kligler-Vilenchik, 2021; Silverman, 2022, as cited in the wider WhatsApp governance literature). Where Chadwick and Vaccari (2023) showed that explicit "group rules" can foster collective epistemic vigilance against misinformation, the present findings suggest a parallel, broader effect: clear and consistently enforced moderation appears to shape members' overall confidence in the group as a community engagement vehicle, not only their trust in the accuracy of shared information. This dovetails with the qualitative theme in which members explicitly requested "laid down rules," "proper management… by the group admins," and "regulation" of message volume, echoing Garcia's (2021) findings on how Brazilian WhatsApp users actively manage group membership and message flow to cope with overload.

Third, and perhaps most striking, is the divergence between near-universal endorsement of WhatsApp groups as a community-organising tool (100% would recommend) and more moderate, variable ratings of individual group effectiveness (86.3% effective/very effective, but with meaningful variation by group type and no shortage of documented frictions). This pattern suggests that respondents distinguish between the platform's potential and a given group's execution of that potential, a distinction with direct relevance for community organisations and administrators: the technology itself is not the bottleneck to effective engagement; governance and moderation practice is. This interpretation is consistent with the broader community engagement literature's emphasis on process and facilitation quality over the mere existence of a participation channel (Head, 2007; Weger et al., 2018).

The absence of a significant negative-experience-to-effectiveness association also merits attention. It does not indicate that overload, spam, and conflict are unimportant; item-level means show that message-volume overwhelm ($M = 3.10$) is a real and moderately prevalent experience, consistent with international findings on social media and instant-messaging fatigue (Fu et al., 2020; Lee et al., 2016; Sun et al., 2021; Tang et al., 2024). Rather, it suggests that within this sample such frictions function more as a cost that members absorb or actively manage (through muting, selective attention, or requests for better moderation) than as a determinant of whether they judge the group effective overall, a nuance that a purely negative or deficit-framed reading of the WhatsApp fatigue literature might miss.

These findings should be read against the backdrop of the Nigerian and wider West African WhatsApp ecosystem, in which the platform functions as a default communication infrastructure across political, health, educational, and economic domains (Abubakar & Dutton, 2018; Cheeseman et al., 2020; Elom et al., 2025; Garba et al., 2022; Makinde et al., 2020; Uwalaka & Nwala, 2023). The present sample's professional and school/alumni skew, and its members' relatively high education levels, likely reflect this broader pattern of WhatsApp as the primary channel through which educated, urban Nigerians organise both formal and informal community life, a context that differs meaningfully from the largely political and misinformation-focused Brazilian and Indian literatures that dominate current WhatsApp scholarship (Kalogeropoulos et al., 2023; Malhotra, 2023).

6. IMPLICATIONS

6.1 Practical Implications

For community organisations, employers, schools, and religious or residential associations seeking to use WhatsApp deliberately as an engagement tool, three practical implications follow. First, invest in moderation, not just membership: appointing and training active, consistent administrators, and establishing clear, transparently enforced posting norms, appears to do more for perceived effectiveness than simply growing group size. Second, protect the informational core: groups that reliably deliver timely, accurate information sustain member trust even when social or participatory activity is uneven; administrators should therefore prioritise information quality and timeliness over volume. Third, create structured participation opportunities: qualitative responses calling for "timed activities" and more "interactive" formats suggest that effectiveness can likely be further improved by supplementing organic chat with light structure, such as scheduled discussion threads, polls, or periodic summaries, without over-formalising the group's inherently informal character.

6.2 Theoretical Implications

Theoretically, the findings support extending Uses and Gratifications and social capital frameworks to the specific case of multi-purpose WhatsApp community groups, rather than treating WhatsApp as a monolithic "social media" category alongside open platforms such as Facebook or X. The salience of moderation and trust as a distinct, empirically separable construct, on par with informational value in predicting effectiveness, suggests that future WhatsApp-specific engagement models should incorporate group governance as a first-order construct rather than a background contextual factor, building on but extending the group-rules literature (Chadwick & Vaccari, 2023; Kligler-Vilenchik, 2021).

7. CONCLUSION

This study examined the effectiveness of WhatsApp groups as a community engagement tool through a cross-sectional survey of 51 members across residential, professional, school/alumni, family, religious, and market-based groups. The results show that WhatsApp groups are perceived as broadly effective engagement tools, with informational value, participation, and, above all, administrator moderation and member trust emerging as the strongest correlates of that perceived effectiveness, while common frictions such as message overload and occasional conflict, though real, did not significantly undermine overall effectiveness judgements. Universal willingness to recommend WhatsApp groups for community organising, set against more variable individual group ratings, indicates that the platform's potential for community engagement is widely recognised, but that realising this potential consistently depends on deliberate governance rather than on the technology alone. Community organisations, administrators, and researchers should therefore treat WhatsApp groups not as passive communication channels but as social infrastructures that require active stewardship, with future research extending this survey-based approach to larger, more representative samples and testing the moderation-effectiveness relationship using longitudinal or experimental designs.

Recommendations for Future Research

Future studies should (a) replicate this survey with a larger, probability-based sample stratified by group type to enable robust between-group comparisons; (b) employ longitudinal designs to examine whether moderation quality causally precedes changes in perceived effectiveness; (c) triangulate self-reported perceptions with actual message-log content analysis, following methods established in the misinformation literature (Kalogeropoulos et al., 2023; Resende et al., 2019, as cited in prior WhatsApp content-analytic work); and (d) examine potential moderators such as group size, urban/rural location, and digital literacy, which the present convenience sample could not adequately capture.

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Availability of data and materials The dataset generated and analysed during this study is available from the corresponding author on reasonable request.

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