

Hidden yet visible: methodological challenges researching sexual health in Sudanese refugee communities

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Research addressing sensitive topics with people from small, minority, ethnic communities can present challenges that are difficult to address using conventional methods. This paper reports on the methodological approach used to explore sexual health knowledge, attitudes and beliefs among the Sudanese community in Queensland, Australia. The multiphase, mixed-method study involved young people 16 to 24 years of age participating in a written survey and semi-structured interview and focus-group discussions with the broader Queensland Sudanese community members. Community collaboration, the key factor to the success of this research, optimised the development of a research environment that built trust and facilitated access and subsequent understanding. Research conducted in partnership with the target community can address methodological challenges and produce meaningful information when researching sensitive topics with small but 'highly-visible' populations.

Keywords: research methods; sexual health; Sudanese refugees; vulnerable populations; Australia

Introduction

Sensitive research topics require participants to discuss attitudes, beliefs and behaviours considered personal and private, which may lead to discomfort, social isolation or even persecution (Wellings, Branigan, and Mitchell 2000). Such research raises methodological, ethical and logistical difficulties as researchers and participants balance cultural and social values and ethical research considerations (Birman 2005). Addressing issues such as sexual health from a cultural perspective with a small, highly-visible, 'hard-to-reach' population has in the past resulted in the research being deemed 'too hard' to countenance (Hynes 2003; Ogilvie, Burgess-Pinto, and Caufield 2008; Smith and Pitts 2007; Wilson and Neville 2009). These difficulties have contributed to the dearth of research addressing sensitive topics in hard-to-access groups.

This paper reports on the methodological approach used to explore the sexual-health knowledge, attitudes and behaviours of the Queensland Sudanese community. The research utilised a descriptive, collaborative multiphase research model (Creswell and Plano-Clark 2007), involving a combination of quantitative and qualitative approaches.

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50 Emerging from a community-led initiative to understand the variance of intergenerational
51 sexual health attitudes and beliefs, it aimed to identify and explore the sexual health
52 knowledge, attitudes and patterns of behaviour of 16–24-year-old Queensland Sudanese
53 community members, together with the social, cultural and contextual perspective of the
54 broader Queensland Sudanese community.

55 The importance of establishing rapport and working with the community is emphasised
56 throughout this paper. We describe the steps taken to address the methodological challenges
57 of sampling and recruitment, along with data collection, and highlight some strategies
58 to address the challenges associated with these key research design issues. We contend that
59 the challenges of conducting sensitive research with small, minority, ethnic communities
60 can be addressed with careful planning and close community collaboration.

61 62 63 *What do we know about the target population?*

64 The Australian Bureau of Statistics Census of Population and Housing recorded 19,050
65 Sudan-born people living in Australia in 2006 (Commonwealth of Australia 2009).
66 However, it is estimated that around 28,000 people of Sudanese background have resettled
67 in Australia since 1996 (Australian Government 2009) with approximately 62% being
68 under 24 years of age (Commonwealth of Australia 2007). Sudan's history of over 40 years
69 of civil conflict (Rogier 2005) has led to the majority of Sudanese community members
70 arriving in Australia via the Humanitarian Program following protracted periods of
71 displacement and forced migration (Commonwealth of Australia 2007). The longevity
72 of Sudan's civil conflict also means many young Sudanese arrivals have never known life
73 without unrest and the range of physical, psychological and social experiences that
74 accompany forced migration and life in a refugee camp (Tempany 2009). These
75 experiences may include trauma, torture, rape, family separation and loss, and community
76 breakdown, along with limited access to education and health services (Copping,
77 Shakespeare-Finch, and Paton 2010; Goodman 2004; Kizito 2001; Tempany 2009).

78 It is well established that forced migration is associated with sexual health
79 vulnerabilities and increased risk of negative sexual-health outcomes (McGinn 2000).
80 Despite this, there is scant research addressing sexual health and well-being of migrant and
81 refugee communities in their new settlement country (Hoffman et al. 2011; McMichael
82 and Gifford 2009; Tompkins et al. 2006, Zhou 2012). As the sexual health of refugee
83 background communities continues to be overlooked post-resettlement in Australia
84 (McMichael and Gifford 2010), the authors of this paper argue that this group's sexual
85 vulnerability may continue after resettlement if the lack of research and understanding
86 continues.

87 An emerging body of research involving members of the Australian Sudanese
88 community focuses mainly on this community as a part of larger collective target
89 populations such as African (Harte, Childs, and Hastings 2009; Johnson 2007; Matereke
90 2009; Neale et al. 2007; Sheikh-Mohammed et al. 2006) or refugee groups (Henderson and
91 Kendall 2011; Johnson, Ziersch, and Burgess 2008) and thus limits specific understanding
92 of this community group. Some of these broader studies include HIV status among
93 minority ethnic groups (Körner 2007) and working with African communities on HIV
94 prevention (Lemoh, Biggs, and Hellard 2008). However, studies with the Australian
95 Sudanese community as the sole target population mainly focus on issues pertaining to
96 acculturation (Hebbani, Obijiofor, and Bristed 2009; Milner and Khawaja 2010; Poppitt
97 and Frey 2007), settlement in Australia (Lejukole 2008; Murray 2010; Nunn 2011),
98 English language literacy and learning (Brown, Miller, and Mitchell 2006;

99 Burgoyne and Hull 2007), mental health and trauma (Copping, Shakespeare-Finch, and
100 Paton 2010) and not sexual health.

101 In contrast to this trend, McMichael (2008) explored sexual-health literacy among
102 16–25-year-old refugee youth in Melbourne and identified a number of key factors that
103 influence the sexual health of this group. However, the small sample ($n = 142$) prohibited
104 meaningful analysis of the Sudanese sub-group ($n = 25$) data (McMichael 2008).
105 Poor HIV knowledge and patterns of sexual-risk behaviour have been found in studies
106 conducted with Sudanese communities in Sudan (Ali and Pett 2005; Allen 2007) and
107 resettlement countries such as the USA (Tompkins et al. 2006; Willis and Nkwocha 2006).
108 However, the dearth of studies focusing on sexual health knowledge, attitudes and
109 behaviours within unique sociocultural contexts of individual resettlement communities
110 continues to limit our ability to respond with appropriate interventions.

111 112 *Researching sensitive topics with a highly-visible community*

114 The Queensland Sudanese community, like other refugee-background communities, may in
115 some senses be considered ‘hidden’ and ‘hard-to-reach’ (Jacobsen 2006; Spring et al.
116 2003). Pre-arrival experiences, including mistrust of government-initiated programmes,
117 may result in a reluctance to participate in research (Gifford et al. 2007; Hynes 2003).
118 Fear that participating in research focusing on a socially and culturally sensitive topic may
119 further add to discrimination and negative stereotyping already experienced post-settle-
120 ment and create further unwillingness (Colic-Peisker 2009; Ogilvie, Burgess-Pinto, and
121 Caufield 2008; Wilson and Neville 2009). Both these factors contribute to this group being
122 considered hidden and hard-to-reach. However, while potentially hard-to-reach, the
123 Queensland Sudanese community, due to their physical, racial and cultural characteristics,
124 may be considered ‘highly visible’ rather than hidden, within the predominately ‘white
125 Anglo-Western’ Australian community (Colic-Peisker 2009; Colic-Peisker and Tilbury
126 2007; Dhanji 2009; Hebbani and McNamara 2010; Nunn 2011; White 2009). Despite
127 Australia’s multiculturalism and anti-discrimination policy and legislation, visibly
128 different individuals and communities experience discrimination and negative stereotyping
129 (Colic-Peisker 2009; Colic-Peisker and Tilbury 2007). Fear of further discrimination, if
130 associated with sensitive research, combined with a reluctance to participate in research due
131 to past experiences may present difficulties when conducting research with this group.

132 Highly-visible communities are also often labelled as belonging to a collective,
133 homogenous group by appearance and/or experiences (Dhanji 2009; White 2009). For
134 example the Sudanese community may be labelled ‘African’ (Dhanji 2009) and/or,
135 ‘refugee’ (Nunn 2011), as in the studies conducted in Australia noted earlier. A collective
136 grouping labelled as refugee can create: feelings of isolation and not belonging within
137 the Australian community; an increased sense of vulnerability and stigmatisation; and
138 generalisation of pre- and post-arrival experiences (Nunn 2011). Collective labelling as
139 African has the potential for researchers with limited understanding of the true
140 heterogeneous nature of the African and Sudanese community to miss recognising the
141 needs of specific ethnic sub-communities with their target population (Dhanji 2009).
142 Failure to recognise unique target population characteristics may impact on a researcher’s
143 ability to gain access and trust within the community (Wilson and Neville 2009).
144 The success of any research with a highly-visible or hidden minority group depends on the
145 researcher developing a level of rapport that enables sharing of these unique nuances and
146 the sociocultural reality of participants (Wilson and Neville 2009). Research questions
147 related to participants’ sexual health involves the exploration of personal and sensitive

148 issues and this can be particularly challenging with communities who identify this topic as
149 culturally taboo and/or sensitive (Elam and Fenton 2003). As it is the community and
150 individual participants who can most effectively define issues that are sensitive and
151 identify methods to address these issues, one of the most effective ways to address the
152 challenge of researching potentially sensitive issues is to incorporate the target community
153 in the development of the research approach (Elam and Fenton 2003). In this study,
154 community consultation indicated that the desire to develop greater understanding of what
155 young people were thinking and doing in regards to relationships and sexual behaviour
156 and how the community needed to respond, outweighed the traditional sensitivity toward
157 sexual health.

160 **Study design and methods**

161 This paper draws from an exploratory descriptive multiphase research project, which
162 emanated from extensive community consultation and a pilot study phase. Conducted
163 under ethical approval from Griffith University Human Research Ethics committee
164 (GU Ref No: NRS/02/09/HREC), this project used a concurrent converging triangulation
165 mixed-method approach (Creswell and Plano-Clark 2007) that involved the concurrent
166 separate collection and analysis of data relating to the same phenomenon from three
167 independent primary-data sources. These included (1) a cross-sectional written sexual
168 health survey with 16–24-year-old, self-identifying members of the Queensland Sudanese
169 community ($n = 229$), (2) 11 semi-structured interviews with a sub-sample of the survey
170 participants and (3) five community focus-group discussions with 19 adults aged between
171 25 and 51 years. The data from these phases were then triangulated without
172 transformation, via a process of comparing and contrasting separate findings
173 (Creswell and Plano-Clark 2007). Identification of convergent and divergent themes
174 provided a depth of findings that effectively answered the research questions and increased
175 confidence in the meaning and trustworthiness of the study findings (Creswell and Plano-
176 Clark 2007). The combination of quantitative and qualitative approaches to investigate
177 this complex and sensitive topic provided rich data (Sandelowski 2000) and strengthened
178 the quality and rigour of findings (Ager 2000; Creswell 1994; Creswell and Plano-Clark
179 2007; Moffat et al. 2006). The process adopted provided a better understanding of the
180 overlapping complexity of issues that is often lacking in single method studies
181 (Creswell and Plano-Clark 2007).

184 ***Community consultation and study reference group***

185 Widespread community consultation occurred prior to commencing the study and was
186 ongoing throughout. This helped to develop understanding of the social and cultural
187 context of the community and foster community trust and identification with the research
188 (Israel et al. 2005) while providing opportunity to identify their needs (Israel et al. 2005;
189 Lantz et al. 2006; Sadler et al. 2006; Wallerstein et al. 2005). The chief researcher, this
190 paper's first author, consulted with the community by the formation of a study reference
191 group of community members combined with regular attendance at formal community
192 meetings and participation in informal social gatherings. The researcher established
193 an open, respectful communication pathway, both face-to-face and via telephone and
194 email contact, with the reference group and other key community members to ensure the
195 community had a direct voice in the research.
196

197 The reference group, comprising community members aged 19–50 years from
198 a range of Sudanese tribal affiliations, provided cultural advice to the researcher. This
199 group was an active partner in the development of the research question and
200 methodological approach. Membership in the reference group changed throughout the
201 research in response to members' varying levels of availability due to competing family,
202 community and work demands. This diversity and fluidity of membership provided the
203 opportunity for increased community involvement and enlarged the overall community
204 representation. It also prevented any member becoming a gatekeeper or sole voice
205 representing the broader community (Temple and Moran 2006).

206 Community involvement included not only the establishment of the reference group
207 but ongoing support and input from members of key Queensland Sudanese formal groups
208 and a number of informal social networks. An email group comprising community
209 members and participants, who expressed an interest in being kept informed of the study's
210 progress, provided a pathway for the reverse flow of information about community
211 issues and upcoming events, for disseminating research information and study
212 recruitment. Young members of the reference group and the extended email consultation
213 process provided valuable input into the development of a youth-friendly and safe research
214 environment. It also enabled recruitment strategies that targeted youth from a range of
215 community subgroups to be implemented. Creating a connection between the research,
216 the young people and the broader target community was instrumental in the successful
217 engagement and recruitment for this study.

218 The first author spent a considerable time attending community and youth-specific
219 gatherings. This provided opportunity to observe and gain understanding of the cultural
220 beliefs, traditions and sociocultural reality of the community's Queensland experience.
221 Drawing on previous research (Cottone 2005; Harte, Childs, and Hastings 2009;
222 Hebbani, Obijiofor, and Bristed 2010; Khawaja et al. 2008; Murray 2010; Poppitt and Frey
223 2007; Westoby 2008) and anecdotal evidence gathered during the various consultations,
224 she developed a closer understanding of the multi-layered issues that face the target
225 community and its young members in their new social world. This understanding,
226 combined with ongoing collaboration with the reference group, guided development of
227 a contextually and culturally appropriate research environment (Westoby 2008;
228 Wilson and Neville 2009).

229 While logistically time consuming and sometimes challenging, time spent engaging in
230 community consultation was essential. Without this active partnership with the
231 community and invaluable sharing of information, it would not have been possible to
232 develop a research approach reflective of these participants' sociocultural reality
233 (Israel et al. 2005; Nyamathi, Koniak-Griffin, and Greengold 2007; Temple and Moran
234 2006). This approach was essential as it was acceptable to, and inclusive of, the target
235 population and built a level of trust and rapport that facilitated recruitment of adequate
236 participant numbers in a culturally appropriate environment, thereby, minimising
237 selection bias and maximising research value (Birman 2005; Smith and Pitts 2007; Spring
238 et al. 2003). This research partnership model supported the development of findings that
239 would be perceived as relevant and meaningful to the study participants, along with service
240 providers and health policy makers (Gifford et al. 2007; Wilson and Neville 2009).

241 *Why do a pilot study?*

242
243 The pilot study phase determined feasibility of accessing the target community and the
244 appropriateness of the methodological approach. It allowed for early identification of
245

246 barriers or cultural practices that could hinder the research process and timely revision
247 of the research process if required (VanTeijlingen and Hundley 2001). A convenience
248 sample of 30 tribally diverse 16–24-year-old members of the target community was
249 recruited into the pilot phase to assess the sexual health survey for cultural and linguistic
250 appropriateness. This also provided an opportunity for broader consultation with young
251 members of the community. In addition, it resulted in changes to recruitment strategies
252 including incorporating peer recruiters as active participants in recruitment and
253 data collection, together with the inclusion of sporting and social organisations as the
254 primary access and recruitment sites. One community focus-group discussion with five
255 adult members aged between 25 to 40 years was also conducted in the pilot phase. Focus-
256 group discussions have been found to be acceptable and effective in eliciting data on social
257 norms when researching sexual-health- and cross-cultural-related issues
258 (Connell, McKeivitt, and Low 2004; Culley, Hudson, and Rapport 2007; Temple and
259 Moran 2006). Findings from this pilot group gave further insight into the research
260 question, language skill, levels of community interest and accessibility and guided
261 refinement of the focus-group discussion guide.

262 263 *Sample*

264 Sudan consists of over 50 heterogeneous ethnic groups, with approximately 140 different
265 spoken languages (Kizito 2001) along with a complex and diverse array of religious and
266 regional affiliations and sub-communities (Jensen and Westoby 2008; Moro 2004).
267 To date, these demographics have not been captured in any Australian population data,
268 making it difficult to define a clear sample frame for this study. Community consultation
269 indicated that being Sudanese was not based on place of birth or language spoken as
270 recorded on Australia census data. Therefore, for the purpose of eligibility for this
271 research, Sudanese was defined as any person who self-identified as being Sudanese.
272 This reflected the community's view on 'being' Sudanese.

273 Sample sizes for the interview and focus- group data collection were determined by
274 exhaustion of emerging themes. Calculating and achieving a sample size for the survey
275 phase posed some challenges. Based on the estimated population size of 16–24-year-old
276 Sudanese Queenslanders, an established Needed Sample Sizes table (Reaves 1992)
277 indicated a sample size between 230 to 240 participants was needed with an alpha of 0.05.
278 As this represents nearly 50% of the total 16–24-year-old population, there was a concern
279 that this may place unrealistic demand on the participants and community. Initial
280 assessment of the logistics, cost and feasibility also indicated that it may have been beyond
281 the timeframe and capacity of the research. A timeframe of 12 months was therefore set
282 for survey data collection, when recruitment numbers would be reviewed.

283 284 285 *Sampling and recruitment*

286 Non-probability convenience sampling, including snowball and purposive sampling in
287 conjunction with multiple active strategies of recruitment, was chosen as the most culturally
288 and methodologically appropriate approach for this research (Ahmed, Hussain, and
289 Vournas 2001; Bloch 2007; Schofield 2004). Regular consultation with peer recruiters,
290 reference-group members and participants allowed adjustment of sampling methods and
291 active recruitment strategies to reflect local demographics. Purposive sampling was applied
292 in order to achieve gender balance and inclusion of social and tribal/familial networks
293 reflective of the broader Queensland Sudanese community structures. This further increased
294

295 the probability that the findings were reflective of the generalised normative beliefs and
296 concerns of the wider community (Elam and Fenton 2003).

297 Distribution of information and recruitment of participants focused on established
298 cultural, social, sporting and family networks given that strong bonds within these
299 networks are generally formed early upon resettlement (Sheikh-Mohammed et al. 2006).
300 Hidden and hard-to-reach populations also gather at known places (Magnania et al. 2005)
301 and in this instance peer recruiters, study reference-group members and past participants
302 guided the researcher to these known gathering points. This further extension of
303 the seeding points increased opportunity for members of smaller more hidden networks to
304 participate (Magnania et al. 2005).

305 Recruitment of adults for the focus-group discussions was mainly through
306 convenience sampling, using established community groups such as women's support
307 groups, community-based organisation networks and community forums and social events
308 that the researcher was invited to attend.

309 Two young members of the reference group, one female and one male, acted as peer
310 recruiters and were pivotal to the successful recruitment of young people for the survey
311 and interview phases. The use of peer recruiters was strongly supported by both
312 community feedback and the literature as a culturally-appropriate and community-
313 accepted means to facilitate access (Correa-Velez et al. 2011; Elliott, Watson, and Harries
314 2002; Luchters et al. 2008; Simon and Mosavel 2010; Vargo et al. 2004). The peer
315 recruiters were from two different social, tribal and geographical groups within the
316 community and thus were able to provide a diversity of peers and social networks to begin
317 seeding for snowball sampling and recruitment. The use of peer recruiters also decreased
318 the risk of overrepresentation of any one group as they continued to identify new diverse
319 seeding points throughout the data-collection period. This included some state-wide
320 sporting events involving African youth, World Refugee Day celebrations and formal
321 social gatherings organised by the community association. All locations were noted
322 as acceptable and safe by the peer recruiters, the reference group and community leaders.
323 The researcher gave the peer recruiters information about important aspects of the study
324 to support them in their role in recruiting eligible potential participants and data collection.
325 This was successful and 229 participants were recruited by this process within the
326 12-month timeframe mentioned earlier, thus achieving the previously considered
327 unobtainable task of recruiting an adequate sample size.

328 329 *Data collection*

331 The data collection tools for the study were consistent with Fishbein's Integrated
332 Behaviour Science Theory model (Fishbein 2000), the theoretical approach adopted
333 for this research. The sexual-health survey and discussion guides for both the interviews
334 and focus groups were developed from the 4th National Survey of Australian Secondary
335 Students HIV/AIDS and Sexual Health (Smith et al. 2009) for comparison purposes.
336 Reviewed for cultural and linguistic suitability in consultation with the reference group
337 and during the pilot study, the data collection tools were adjusted accordingly. Care was
338 taken not to change the intent of the survey questions. The Cultural Identity Schedule
339 validated in the RELACHS study (Institute of Community Health Sciences 2003) was
340 added to the sexual-health survey to capture cultural identity data.

341 Data collection occurred in English. While it is acknowledged poor English literacy
342 and language skills could be a barrier, English is widely spoken in Southern Sudan
343 (Adult Migrant English Programme Research Centre 2003) and community consultation

344 indicated that the general English proficiency would be adequate amongst potential
345 participants. The reference group considered the use of interpreters may, in fact, reduce
346 participants' willingness to disclose sensitive information (Fenton et al. 2002) and affect
347 group dynamics (Culley, Hudson, and Rapport 2007). This was supported by findings from
348 the pilot focus group. The peer recruiters and researcher also assisted eligible participants
349 to complete the sexual-health survey when requested, thereby increasing participation
350 of young people with lower English skills, who may otherwise have been excluded.
351

352 *Addressing the challenges of community data collection*

354 Many African cultures are polychronic, placing less emphasis on adhering to schedules
355 and more importance on meeting the needs of the people they are with at the time, often
356 interacting with multiple people at once (Hall 2012). To the more monochronic Australian
357 culture, where people tend to arrange their lives around schedules, polychronic cultures
358 can appear spontaneous and unstructured. In this study, this manifested itself in the manner
359 in which participants often arrived late for scheduled meetings, which were further
360 interrupted due to arrival of family or friends. Prior understanding of this cultural norm
361 ensured additional time was allocated for data collection and meetings. However, the time
362 spent waiting for participants to arrive was not wasted as it provided time to observe and
363 converse with community members who arrived near the scheduled starting time. The
364 sharing of stories over a cup of tea provided additional insight into social and cultural
365 attitudes and beliefs of the community, thus further deepening the researcher's
366 understanding and strengthening community rapport.

367 Polychronic cultures also place great meaning on family and gathering in groups and
368 this can lead to difficulty establishing a quiet place to meet for data collection (Hall 2012).
369 To adjust for the Sudanese polychronic nature, the interviews and focus groups were also
370 kept flexible in nature so that participants could join late and come and go as needed. For
371 example Sudanese women are the main care givers (Wal 2004), therefore young children
372 were often present, requiring the discussion to be stopped to allow for participants to address
373 their children's needs. This also posed some difficulty in recording the discussion as there
374 was often significant background noise. To address this, a skilled medical transcriber
375 with knowledge of cross-cultural research was used to transcribe the digital recordings.
376 Additional time was also allocated to checking audio recordings with written field notes and
377 transcripts by the researcher to check accuracy and ensure the intent was captured.

378 The researcher was also flexible in scheduling and changing meeting times and place
379 to meet study participants' needs. For example, men and young participants were
380 generally less available during the day due to work and school commitments, meetings
381 were therefore scheduled for evenings and weekends. For the additional convenience for
382 participants, data collection often occurred in homes and locations nominated by the
383 participants. This provided a relaxed and safe environment to facilitate the sharing of
384 information (Gallagher 2009; Holloway and Wheeler 2010). However, consideration
385 needed to be given to the potential risks associated with community-based data collection
386 and a safety plan was developed in consultation with the community and the research
387 team and adhered to at all times (Dickson-Swift et al. 2007).
388

389 **Discussion**

391 Careful planning, cultural understanding and sensitivity, and close community
392 collaboration can overcome the methodological challenges associated with conducting

sensitive research with small, highly-visible ethnic minority communities. The research methodology needs to be acceptable and appropriate to the community and aligned with the community's sociocultural context (Wilson and Neville 2009). The research needs to reflect the voice and socialcultural reality of the target community and the only way to achieve this is to design and conduct the research in collaboration with the community (Elam and Fenton 2003; Ogilvie, Burgess-Pinto, and Caufield 2008; Wilson and Neville 2009).

The perception of a community as hard-to-reach may be an artefact of conventional research practices, limited understanding of the cultural diversity in heterogeneous groups and limited experience in collaborating and conducting research with these groups. Sampling and recruitment present real challenges, but there is a range of community-inclusive approaches that enable the culturally appropriate recruitment of participants. Research with small, highly-visible ethnic minority communities requires that research participants know that their voices are heard and included. Researchers must be committed to engage the community throughout the research process.

Involving the community and using peer recruiters undoubtedly added complexity and additional ethical considerations, but addressing the challenges was feasible and rewarding to the community, participants and the researchers. Mutuality, in terms of sharing and respect of cultural beliefs and research knowledge, is a first step to developing a culturally-appropriate environment and research methodology where the community and researchers are equal partners and beneficiaries of the research. This can only be achieved by ensuring the target community is involved in all stages of the research, as was the case of the research outlined in this paper. However, it is also important to ensure that the community partners understand the research aims and processes and are kept informed of progress and outcomes in a manner they consider beneficial to participants and the broader community (Culley, Hudson, and Rapport 2007). The reciprocal sharing of experiences and outcomes can reduce misunderstanding, disillusion and reluctance to participate.

More sexual-health research, conducted in collaboration with small but highly-visible communities, is needed. Without this, community members may not receive appropriate sexual-health care and education. The key to developing specific services and supporting health policy is for researchers and target communities to work together to address the challenges associated with this type of research in a mutually reflective way.

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References

- Adult Migrant English Programme Research Centre. 2003. *Country profile factsheet 4 – Sudan*. Melbourne, VIC: La Trobe University.
- Ager, A. 2000. Psychological programs: Principles and practice for research and evaluation. In *Psychosocial wellness of refugees: Issues in qualitative and quantitative research*, ed. F.L. Ahern, 24–38. New York: Berghalm Books.

- 442 Ahmed, S., M. Hussain, and G. Vournas. 2001. Consultation with 'hidden' and hard-to-reach groups:
443 Methods, techniques and research practice. Paper presented at Consulting Hard To Reach
444 Groups: Laria Seminar, November 15, in Birmingham, UK.
- 445 Ali, M., and C. Pett. 2005. A sexual and reproductive health education initiative for young Sudanese
446 refugees in urban Egypt. *Community Development Journal* 40, no. 2: 192–200.
- 447 Allen, T. 2007. Witchcraft, sexuality and HIV/AIDS among the Azande of Sudan. *Journal of*
448 *Eastern African Studies* 1, no. 3: 359–96.
- 449 Australian Government. 2009. *Refugee and humanitarian issues Australia's response June 2009*.
450 Canberra: Department of Immigration and Citizenship.
- 451 Birman, D. 2005. Ethical issues in research with immigrants and refugees. In *The handbook of*
452 *ethical research with ethnocultural populations and communities*, ed. J.E. Trimble and C. Fisher,
453 155–78. Thousand Oaks, CA: Sage.
- 454 Bloch, A. 2007. Methodological challenges for national and multi-sited comparative survey
455 research. *Journal of Refugee Studies* 20, no. 2: 230–47.
- 456 Brown, J., J. Miller, and J. Mitchell. 2006. Interrupted schooling and the acquisition of literacy:
457 Experiences of Sudanese refugees in Victorian secondary schools. *Australian Journal of*
458 *Language and Literacy* 29, no. 2: 150–62.
- 459 Burgoyne, U., and O. Hull. 2007. *Classroom management strategies to address the needs of*
460 *Sudanese refugee learners: Support document – methodology and literature review*. Adelaide,
461 SA: National Centre for Vocational Education Research.
- 462 Colic-Peisker, V. 2009. Visibility, settlement success and life satisfaction in three refugee
463 communities in Australia. *Ethnicities* 9, no. 2: 175–99.
- 464 Colic-Peisker, V., and F. Tilbury. 2007. *Refugees and employment: The effect of visible difference on*
465 *discrimination*. Perth, WA: Centre for Social and Community Research, Murdoch University.
- 466 Commonwealth of Australia. 2007. *Sudanese community profile*. Canberra: Department of
467 Immigration and Citizenship.
- 468 Commonwealth of Australia. 2009. *Community information summary: Sudan-born*. Canberra:
469 Department of Immigration and Citizenship.
- 470 Connell, P., C. McKeivitt, and N. Low. 2004. Investigating ethnic differences in sexual health: Focus
471 groups with young people. *Sexually Transmitted Infections* 80, no. 4: 300–5.
- 472 Copping, A., J. Shakespeare-Finch, and D. Paton. 2010. Towards a culturally appropriate mental
473 health system: Sudanese-Australians' experiences with trauma. *Journal of Pacific Rim*
474 *Psychology* 4, no. 1: 53–60.
- 475 Correa-Velez, I., A.G. Barnett, S.M. Gifford, and D. Sackey. 2011. Health status and use of health
476 services among recently arrived men with refugee backgrounds: A comparative analysis of
477 urban and regional settlement in south-east Queensland. *Australian Journal of Primary Health*
478 17, no. 1: 66–71.
- 479 Cottone, C. 2005. *New kids on the block: Making space for Sudanese young people in Queensland*.
480 West End, QLD: Youth Affairs Network of Queensland.
- 481 Creswell, J.W. 1994. *Research design qualitative and quantitative approaches*. Thousand Oaks, CA:
482 Sage.
- 483 Creswell, J.W., and V.L. Plano-Clark. 2007. *Designing and conducting mixed methods research*.
484 Thousand Oaks, CA: Sage.
- 485 Culley, L., N. Hudson, and F. Rapport. 2007. Using focus groups with minority ethnic communities:
486 Researching infertility in British South Asian communities. *Qualitative Health Research* 17,
487 no. 1: 102–12.
- 488 Dhanji, S. 2009. Welcome or unwelcome? Integration issues and the resettlement of former refugees
489 from the horn of Africa and Sudan in metropolitan Melbourne. *Australasian Review of African*
490 *Studies* 30, no. 2: 152–78.
- 491 Dickson-Swift, V., E.L. James, S. Kippen, and P. Liamputtong. 2007. Doing sensitive research:
492 What challenges do qualitative researchers face? *Qualitative Research in Psychology* 7, no. 3:
493 327–53.
- 494 Elam, G., and K.A. Fenton. 2003. Researching sensitive issues and ethnicity: Lessons from sexual
495 health. *Ethnicity and Health* 8, no. 1: 15–27.
- 496 Elliott, E., A.J. Watson, and U. Harries. 2002. Harnessing expertise: Involving peer interviewers
497 in qualitative research with hard-to-reach populations. *Health Expectations* 5, no. 2: 172–8.

- 491 Fenton, K., M. Chinouya, O. Davidson, and A. Copas. 2002. HIV testing and high-risk sexual
492 behaviour among London's migrant African communities: A participatory research study.
493 *Sexually Transmitted Infections* 78, no. 4: 241–5.
- 494 Fishbein, M. 2000. The role of theory in HIV prevention. *AIDS Care* 12, no. 3: 273–8.
- 495 Gallagher, M. 2009. Data collection and analysis. In *Researching with children and young people:*
496 *Research design, methods and analysis*, ed. E.K.M. Tisdall, J.M. Davis, and M. Gallagher,
497 65–153. Los Angeles, CA: Sage.
- 498 Gifford, S.M., C. Bakopanos, I. Kaplan, and I. Correa-Velez. 2007. Meaning or measurement?
499 Researching the social contexts of health and settlement among newly-arrived refugee youth in
500 Melbourne, Australia. *Journal of Refugee Studies* 20, no. 3: 414–40.
- 501 Goodman, J.H. 2004. Coping with trauma and hardship among unaccompanied refugee youths from
502 Sudan. *Qualitative Health Research* 14, no. 9: 1177–96.
- 503 Hall, E.T. 2012. Monochronic and polychronic time. In *International communication: A reader*, ed.
504 L.A. Samovar, R.E. Porter, and E.R. McDaniel. 13th ed., Boston, MA: Wadsworth, Cengage
505 Learning.
- 506 Harte, W., I.R.W. Childs, and P.A. Hastings. 2009. Settlement patterns of African refugee
507 communities in southeast Queensland. *Australian Geographer* 40, no. 1: 51–67.
- 508 Hebbani, A., and J. McNamara. 2010. Examining the impact of 'visible difference' on multiple
509 marginalisation of Somali and Sudanese former refugees in Australia. Paper presented at the
510 Australian and New Zealand Communications Association Annual Conference, July 7–9,
511 in Canberra, Australia.
- 512 Hebbani, A., L. Obijiofor, and H. Bristed. 2009. Generational differences faced by Sudanese refugee
513 women settling in Australia. *Intercultural Communication Studies* 18, no. 1: 66–82.
- 514 Hebbani, A., L. Obijiofor, and H. Bristed. 2010. Intercultural communication challenges confronting
515 female Sudanese former refugees in Australia. *Australasian Review of African Studies* 31, no. 1:
516 37–61.
- 517 Henderson, S., and E. Kendall. 2011. Culturally and linguistically diverse peoples' knowledge of
518 accessibility and utilisation of health services: Exploring the need for improvement in health
519 service delivery. *Australian Journal of Primary Health* 17, no. 2: 195–201.
- 520 Hoffman, S., J.A. Higgins, S.T. Beckford-Jarrett, M. Augenbraun, K.E. Bylander, J.E. Mantell, and
521 T.E. Wilson. 2011. Contexts of risk and networks of protection: NYC West Indian immigrants'
522 perceptions of migration and vulnerability to sexually transmitted diseases. *Culture, Health and*
523 *Sexuality* 13, no. 5: 513–28.
- 524 Holloway, L., and S. Wheeler. 2010. *Qualitative research in nursing and healthcare*, 3rd ed. Oxford:
525 Wiley-Blackwell.
- 526 Hynes, T. 2003. *New issues in refugee research. The issue of 'trust' or 'mistrust' in research with*
527 *refugees: Choices, caveats and considerations for researchers. Working paper 98.* Geneva:
528 Evaluation and Policy Analysis Unit, The United Nations Refugee Agency.
- 529 Institute of Community Health Sciences. 2003. *Health of young people in East London: The relachs*
530 *study 2001.* London: TSO.
- 531 Israel, B.A., E. Eng, A.J. Schulz, and E.A. Parker. 2005. Introduction to methods in community-
532 based participatory research for health. In *Methods in community-based participatory research*
533 *in health*, ed. B.A. Israel, E. Eng, A.J. Schulz, and E.A. Parker, 3–26. San Francisco, CA:
534 Jossey-Bass.
- 535 Jacobsen, K. 2006. Refugees and asylum seekers in urban areas: A livelihoods perspective. *Journal*
536 *of Refugee Studies* 19, no. 3: 273–86.
- 537 Jensen, P., and P. Westoby. 2008. Restorative justice: An integrated model for resettling young
538 Sudanese. *New Community Quarterly* 6, no. 3: 13–19.
- 539 Johnson, D. 2007. *Rates of infectious diseases and nutritional deficiencies in newly arrived African*
540 *refugees.* Adelaide, SA: Government of South Australia.
- 541 Johnson, D.R., A.M. Ziersch, and T. Burgess. 2008. I don't think general practice should be the front
542 line: Experiences of general practitioners working with refugees in South Australia. *BMC*
543 *Australia and New Zealand Health Policy* 5, no. 20. doi: 10.1186/1743-8462-5-20
- 544 Khawaja, N.G., K.M. White, R. Schweitzer, and J. Greenslade. 2008. Difficulties and coping
545 strategies of Sudanese refugees: A qualitative approach. *Transcultural Psychiatry* 45, no. 3:
546 489–512.
- 547 Kizito, H. 2001. *Refugee health care: A handbook for health professionals.* Wellington:
548 New Zealand: Ministry of Health Wellington.

- 540 Körner, H. 2007. Negotiating cultures: Disclosure of HIV-positive status among people from
541 minority ethnic communities in Sydney. *Culture, Health & Sexuality* 9, no. 2: 137–52.
- 542 Lantz, P.M., B.A. Israel, A.J. Schulz, and A. Reyes. 2006. Community-based participatory research:
543 Rationale and relevance for social epidemiology. In *Methods in social epidemiology*, ed. J.M.
544 Oakes and J.S. Kaufman, 239–66. San Francisco, CA: Jossey-Bass.
- 545 Lejukole, J.W.K.L. 2008. 'We will do it our own way': A perspective of Southern Sudanese refugees
546 resettlement experiences in Australian society. Adelaide, SA: The University of Adelaide.
- 547 Lemoh, C., B. Biggs, and M. Hellard. 2008. Working with West African migrant communities on
548 HIV prevention in Australia. *Sexual Health* 5, no. 4: 313–4.
- 549 Luchters, S., M.F. Chersich, A. Rinyiru, M.-S. Barasa, N. King'ola, K. Mandaliya, W. Bosire,
550 S. Wambugu, P. Mwarogo, and M. Temmerman. 2008. Impact of five years of peer-mediated
551 interventions on sexual behavior and sexually transmitted infections among female sex workers
552 in Mombasa, Kenya. *BMC Public Health* 8, no. 143. doi: 10.1186/1471-2458-8-143
- 553 Magnani, R., K. Sabin, T. Saidel, and D. Heckathorn. 2005. Review of sampling hard-to-reach and
554 hidden populations for HIV surveillance. *AIDS* 19, suppl. 2: S67–72.
- 555 Matereke, K. 2009. 'Embracing the aussie identity': Theoretical reflections on challenges and
556 prospects for African-Australian youths. *Australasian Review of African Studies* 30, no. 1:
557 129–43.
- 558 McGinn, T. 2000. Reproductive health of war-affected populations: What do we know?
559 *International Family Planning Perspectives* 26, no. 4: 174–80.
- 560 McMichael, C. 2008. *Promoting sexual health amongst resettled youth with refugee backgrounds*.
561 Melbourne, VIC: Refugee Health Research Centre, La Trobe University.
- 562 McMichael, C., and S. Gifford. 2009. 'It is good to know now ... before it's too late': Promoting
563 sexual health literacy amongst resettled young people with refugee backgrounds. *Sexuality &
564 Culture* 13, no. 4: 218–37.
- 565 McMichael, C., and S. Gifford. 2010. Narratives of sexual-health risk and protection amongst young
566 people from refugee backgrounds in Melbourne, Australia. *Culture, Health & Sexuality* 12, no. 3:
567 263–77.
- 568 Milner, K., and N.G. Khawaja. 2010. Sudanese refugees in Australia: The impact of acculturation
569 stress. *Journal of Pacific Rim Psychology* 4, no. 1: 19–29.
- 570 Moffat, S., M. White, J. Mackintosh, and D. Howel. 2006. Using quantitative and qualitative data in
571 health services research: What happens when mixed methods findings conflict? *BMC Health
572 Services Research* 6, no. 28. Doi: 10: 1186/1472-6963-6-28. [http://www.biomedcentral.com/
573 content/pdf/1472-6963-7-85.pdf](http://www.biomedcentral.com/content/pdf/1472-6963-7-85.pdf)
- 574 Moro, L.N. 2004. Interethnic relations in exile: The politics of ethnicity among Sudanese refugees in
575 Uganda and Egypt. *Journal of Refugee Studies* 17, no. 4: 420–36.
- 576 Murray, K.E. 2010. Sudanese perspectives on resettlement in Australia. *Journal of Pacific Rim
577 Psychology* 4, no. 1: 30–43.
- 578 Neale, A., J.Y.Y. Ngeow, S.A. Skull, and B. Biggs. 2007. Health services utilisation and barriers for
579 settlers from the Horn of Africa. *Australian and New Zealand Journal of Public Health* 31, no. 4:
580 333–5.
- 581 Nunn, C. 2011. Spaces to speak: Challenging representations of Sudanese-Australians. *Journal of
582 Intercultural Studies* 31, no. 2: 183–98.
- 583 Nyamathi, A., D. Koniak-Griffin, and B. Greengold. 2007. Development of nursing theory and
584 science in vulnerable populations research. In *Annual review of nursing research*, ed.
585 A. Nyamathi and Koniak-Griffin, 25, 3–25.
- 586 Ogilvie, L.D., E. Burgess-Pinto, and C. Caufield. 2008. Challenges and approaches to newcomer
587 health research. *Journal of Transcultural Nursing* 19, no. 1: 164–73.
- 588 Poppitt, G., and R. Frey. 2007. Sudanese adolescent refugees: Acculturation and acculturative stress.
Australian Journal of Guidance and Counselling 17, no. 2: 160–81.
- Reaves, C.C. 1992. *Quantitative research for the behavioural sciences*. New York: John Wiley & Sons.
- Rogier, E. 2005. *No more hills ahead? The Sudan's tortuous ascent to heights of peace. Clingendael security paper no. 1*. The Hague: Netherlands Institute of International Relations, Clingendael.
- Sadler, K.E., C.A. McGarrigle, G. Elam, W. Ssanyu-Sseruma, G. Othieno, O. Davidson, D. Mercey, J.V. Parry, and K.A. Fenton. 2006. Mayisha II: Pilot of a community-based survey of sexual attitudes and lifestyles and anonymous HIV testing within African communities in London. *AIDS Care* 18, no. 4: 398–403.

- 589 Sandelowski, M. 2000. Focus on research methods: Combining qualitative and quantitative
590 sampling, data collection and analysis techniques in mixed-method studies. *Research in*
591 *Nursing & Health* 23, no. 3: 246–55.
- 592 Schofield, M. 2004. Sampling in quantitative research. In *Handbook of research methods for nursing*
593 *and health science*, ed. V. Minichiello, G. Sullivan, K. Greenwood, and R. Axford. 2nd ed.,
176–209. Frenchs Forest, NSW: Pearson Education, Australia.
- 594 Sheikh-Mohammed, M., C.R. MacIntyre, N.J. Wood, J. Leask, and D. Isaacs. 2006. Barriers to
595 access to health care for newly resettled Sub-Saharan refugees in Australia. *Medical Journal of*
596 *Australia* 185, no. 11–12: 594–7.
- 597 Simon, C., and M. Mosavel. 2010. Community members as recruiters of human subjects: Ethical
598 considerations. *American Journal of Bioethics* 10, no. 3: 3–11.
- 599 Smith, A., P. Agius, A. Mitchell, C. Barrett, and M. Pitts. 2009. *Secondary students and sexual*
600 *health 2008: Results of the 4th National survey of Australian secondary students, HIV/AIDS and*
601 *sexual health*. Melbourne, VIC: Australian Research Centre in Sex, Health & Society, La Trobe
602 University.
- 603 Smith, A., and M. Pitts. 2007. Researching the margins: An introduction. In *Researching the margins*
604 *strategies for ethical and rigorous research with marginalised communities*, ed. M. Pitts and
605 A. Smith, 3–41. Basingstoke, UK: Palgrave Macmillan.
- 606 Spring, M., J. Westermeyer, L. Halcon, K. Savik, C. Robertson, D.R. Johnson, J.N. Butcher, and
607 J. Jaranson. 2003. Sampling in difficult to access refugee and immigrant communities. *Journal*
608 *of Nervous & Mental Disease* 19, no. 12: 813–9.
- 609 Tempny, M. 2009. What research tells us about the mental health and psychosocial wellbeing of
610 Sudanese refugees: A literature review. *Transcultural Psychiatry* 46, no. 2: 300–15.
- 611 Temple, B., and R. Moran. 2006. Introduction. In *Doing research with refugee: Issues and*
612 *guidelines*, ed. B. Temple and R. Moran, 1–20. Bristol, UK: The Policy Press, University of
613 Bristol.
- 614 Tompkins, M., L. Smith, K. Jones, and S. Swundell. 2006. HIV-education needs among Sudanese
615 immigrants and refugees in the midwestern United States. *AIDS and Behaviour* 10, no. 3:
616 319–23.
- 617 Van Teijlingen, E.R., and V. Hundley. 2001. The importance of pilot studies. In *Social research*
618 *update issue 35*, ed. N. Gilbert. Guildford, UK: University of Surrey.
- 619 Vargo, S., G. Agronick, L. O'Donnell, and A. Stueve. 2004. Using peer recruiters and orasure to
620 increase HIV testing. *American Journal of Public Health* 94, no. 1: 29–31.
- 621 Wal, N.D. 2004. *Southern Sudanese culture*. Melbourne, VIC: Migrant Information Centre.
- 622 Wallerstein, N., B. Duran, M. Minkler, and K. Foley. 2005. Developing and maintaining partnership
623 with communities. In *Methods in community-based participatory research for health*, ed.
624 B.A. Israel, E. Eng, A.J. Schulz, and E.A. Parker, 31–51. San Francisco, CA: Jossey-Bass.
- 625 Wellings, K., P. Branigan, and K. Mitchell. 2000. Discomfort, discord and discontinuity as data:
626 Using focus groups to research sensitive topics. *Culture, Health & Sexuality* 2, no. 3: 255–67.
- 627 Westoby, P. 2008. Developing a community-development approach through engaging resettling
628 Southern Sudanese refugees within Australia. *Community Development Journal* 43, no. 4:
629 483–95.
- 630 White, R. 2009. Ethnic diversity and differential policing in Australia: The good, the bad and the
631 ugly. *Journal of International Migration and Integration* 10, no. 4: 359–75.
- 632 Willis, M.S., and O. Nkwocha. 2006. Health and related factors for Sudanese refugees in Nebraska.
633 *Journal of Immigrant and Minority Health* 8, no. 1: 19–33.
- 634 Wilson, D., and S. Neville. 2009. Culturally safe research with vulnerable populations.
635 *Contemporary Nurse* 33, no. 1: 69–79.
- 636 Zhou, Y.R. 2012. Changing behaviours and continuing silence: Sex in the post-immigration lives of
637 mainland Chinese immigrants in Canada. *Culture, Health & Sexuality* 14, no. 1: 87–100.