

A community-based approach to longitudinal language research with racially & ethnically minoritized autistic young adults: Lessons learned and new directions

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1 **Abstract**

2 **Purpose:** Language and autism research each typically exclude racially and ethnically
3 minoritized (REM) autistic individuals. In addition, in the case of autistic individuals with
4 language impairment, investigators often approach caregivers to discuss research participation,
5 rather than autistic individuals themselves. This gap limits the ecological validity of language
6 research in autism. To address this gap, this clinical focus article describes strategies for
7 engaging REM autistic young adults with language impairment using lessons learned from five
8 years of longitudinal research with this population. This approach involved an ongoing
9 community partnership, as well as participatory partnerships with REM autistic individuals and
10 community stakeholders, developed through “slow science.”

11 **Conclusion:** The approach yielded excellent retention of participants over five years and led to
12 co-development of research projects aimed at priorities described by REM autistic individuals
13 and their families, including understanding self-determination, social determinants of health, and
14 language variability in autistic REM with language impairment. Findings support the utility of
15 community-based methods with autistic REM young adults with language impairment, with key
16 take-aways for diversifying research while replicating, extending, and building theory.
17

18 **A community-based approach to longitudinal language research with racially & ethnically**
19 **minoritized autistic young adults: Lessons learned and new directions**

20 Though autism research infrequently reports participant ethnicity (Pierce et al., 2014),
21 such research largely excludes racially and ethnically minoritized individuals (REM), who
22 constitute the global majority (Durkin et al., 2015; Rivera-Figueroa et al., 2022; Roux et al.,
23 2015; Steinbrenner et al., 2022; West et al., 2016). Thus, the experiences of autistic REM have
24 been insufficiently represented in the development of diagnostic criteria, assessments, and
25 policies that impact their lives (Buchanan & Wiklund, 2020; National Institutes for Health,
26 2021). Autism researchers, including self-advocates, have called for removing barriers to
27 participation in research by REM and use of community-based approaches (George et al., 2014;
28 Jones & Mandell, 2020; Maye et al., 2021).

29 Community-based approaches are congruent with broader arguments for “slow science,”
30 or the gradual development of ecologically valid research that promotes reproducibility and
31 development of theory, as well as diversity among researchers and participants (Frith, 2020;
32 Leite & Diele-Viegas, 2021). However, even with community-based approaches, research with
33 REM autistic individuals tends to engage parents and not autistic individuals themselves (DuBay
34 et al., 2018; Ratto et al., 2017; Zamora et al., 2016). These approaches are insufficient for fully
35 understanding the language abilities and experiences of REM autistic individuals varying in
36 language skills and engagement strategies for longitudinal research (Gerhardt & Lainer, 2011;
37 Kuo et al., 2018; Shattuck et al., 2018; Teague et al., 2018; Winter et al., 2018). This clinical
38 focus article provides an illustrative example of a community-based approach to engage REM
39 autistic adolescents and young adults in longitudinal language research.

40 **Systematic Exclusion from Research**

41 The exclusion of autistic REM from research reflects larger sociocultural forces in the
42 research ecosystem (Girolamo et al., 2022b). Following intersectionality theory, REM may have
43 multiple intersecting identities, such as disability and being a minoritized individual, that are
44 each tied to experiences of marginalization and give rise to multiple marginalization that is
45 nuanced, rather than purely additive (Crenshaw, 1989, 1991). Dis/ability Studies and Critical
46 Race theory (DisCrit) centers race and dis/ability as mutually reinforcing social constructs that
47 reflect the reactions of others to individual differences versus individual differences themselves
48 (Annamma et al., 2013, 2018). Though these theories arose from legal and education studies,
49 respectively, they are applicable to clinical research.

50 Researchers work in an ecosystem that relies on convenience sampling to collect and
51 publish data as quickly and as cheaply as possible in order to meet promotion and tenure
52 guidelines, as well as funding agency expectations (Frith, 2020; Leite & Diele-Viegas, 2021;
53 Wendler et al., 2005). These institutional barriers come at a cost to minoritized individuals.
54 Clinical researchers make assumptions about who is a “good” research participant likely to
55 complete study activities or follow complex instructions; these perceptions may serve to exclude
56 autistic REM prior to recruitment (Joseph & Dohan, 2009). Extending the work of Joseph and
57 Dohan (2009), a “good” research participant is one who taxes the research process the least in
58 terms of time and resources. In general, this might mean a participant who has scheduling
59 flexibility, independent means of transportation, and access to reliable internet if data collection
60 is remote. In autism research, a “good” research participant might also mean one who has the
61 ability to use reliable speech and complete standardized protocols. In effect, both convenience
62 sampling and assumptions about the “ideal” research participants can thus contribute to
63 inequitable participation of autistic REM.

64 Importantly, research design conveys certain values and expectations to participants
65 (DuBay et al., 2018; Lewis Jr & Oyserman, 2016). We note some of the barriers that researchers
66 are responsible for perpetuating, drawing on evidence from research with REM and autistic
67 individuals, respectively, and noting the dearth of evidence on autistic REM. Given that
68 researchers may not know how to better recruit and work with diverse versus primarily white
69 participants (Ellis et al., 2021), we also offer strategies.

70 ***Research Sites and Scheduling***

71 One component of research design involves *when* a study takes place; research done only
72 during bankers' hours may conflict with caregiving, work, or other commitments (Brannon et al.,
73 2013; George et al., 2014). Research may also take place at locations that are less accessible to
74 REM communities (Brannon et al., 2013). For example, a single parent of a REM autistic young
75 adult expressed to the first author that she could not participate in a different university study to
76 access speech-language services for her child, because the research took place during working
77 hours and would require over one hour of travel on public transportation each way. Sociocultural
78 norms can also influence accessibility. Conducting research in an unfamiliar environment with
79 unfamiliar sociocultural norms, such as in a primarily white academic environment, may place
80 an undue burden on autistic REM and their families (Girolamo et al., 2020).

81 Fortunately, there are multiple strategies researchers can implement to remove logistical
82 barriers. One such strategy is locating research sites proximally to the neighborhoods of REM
83 autistic individuals and their families (Gowen et al., 2019; Ratto et al., 2017) In some cases,
84 investing in mobile data collection vehicles can enhance accessibility, such as the University of
85 Connecticut's mobile research and outreach unit that contains EEG and eye-tracking devices. If
86 research absolutely cannot take place in community settings, researchers might consider

87 providing transportation, establishing primary or satellite research sites near locations where
88 participants receive other services (e.g., clinics, community centers), flexible scheduling that
89 allows participants to choose among multiple opportunities and various modalities for
90 completing research activities (Brannon et al., 2013; El-Khorazaty et al., 2007; Ratto et al.,
91 2017). Last, regardless of where research takes place, compensating participants immediately
92 upon completion at an appropriate amount serves to mitigate the time and financial cost
93 participants incur in completing research activities (versus some other life activity) (El-
94 Khorazaty et al., 2007; George et al., 2014; Gowen et al., 2019).

95 *Trust and Community Partnership*

96 A third component of research design entails developing trust and rapport with
97 autistic REM. Researchers should make the effort to establish themselves as a trusted presence in
98 REM communities (Erves et al., 2017), with particular considerations for barriers at the
99 intersection of race and disability (Annamma et al., 2013). For instance, a qualitative study of
100 intermediaries during recruitment revealed that researchers often failed to meet with adults with
101 intellectual disability prior to enrollment or to ensure research activities were acceptable to
102 individuals with intellectual disability (Nicholson et al., 2013). Similarly, a narrative review of
103 assent procedures in behavior-analytic articles (a discipline adjacent to communication sciences
104 and disorders) found that 84% of 226 written reports provided no or minimal detail of assent
105 procedures for autistic individuals and individuals with developmental disorders (Morris et al.,
106 2021). One possibility is that participant agency is overlooked in research with autistic
107 individuals, particularly if researchers perceive autistic individuals to have limited preference by
108 nature of being ineligible to legally provide informed consent.

109 Insufficient trust and community partnership from the beginning of research can have

110 cascading effects that exacerbate experiences of marginalization. A meta-analysis of retention
111 strategies in longitudinal studies (Teague et al., 2018) and qualitative studies of Black adults’
112 views on research and underserved populations’ research priorities (Erves et al., 2017; Freimuth
113 et al., 2007), respectively, found minoritized participants commonly believed that clinical
114 research only benefits white people, researchers are dishonest about their research aims, and
115 research staff lack cultural humility. In autism research, Black and Hispanic/Latine families with
116 autistic children report distrust of research as a factor in their decision to not participate (Ratto et
117 al., 2017; Shaia et al., 2020). Some of this distrust may arise from a history of research abuses of
118 the Black community, such as in the case of Henrietta Lacks or Tuskegee airmen (Katz et al.,
119 2006; Skloot, 2017). Some of this distrust may also arise from systematic exclusion of REM
120 from the research community.

121 Engaging autistic REM in research may involve building a community partnership and
122 learning about what engagement should look like for each participant; thus, it is not about
123 implementing a universal community-based strategy, but about . Importantly, though attending to
124 positionality (i.e., where one stands in relation to dynamics of power and privilege) is critical,
125 building community ties may be more important than racial and ethnic concordance for
126 developing trust and rapport with REM communities (El-Khorazaty et al., 2007; Kennedy et al.,
127 2010; Mindlis et al., 2020; Yancey et al., 2006). One way to achieve trust and rapport is by
128 partnering with community leaders or organizations (Erves et al., 2017; Kennedy et al., 2010;
129 Yancey et al., 2006; Zamora et al., 2016). This entails researchers developing a known presence
130 in communities (Erves et al., 2017), treating participants as equals (Kennedy et al., 2010; Lewis
131 Jr & Oyserman, 2016), and letting communities set the tone for interaction norms (e.g., letting
132 communities decide how they want researchers to interact with them) (Brannon et al., 2013).

133 Community partnership may also include developing advisory boards to advise researchers on
134 study activities or identify community priorities (Brannon et al., 2013; Erves et al., 2017; Haack
135 et al., 2014; Ratto et al., 2017). Personalized recruitment may be especially effective for
136 developing trust with individuals with dis/abilities (Lennox et al., 2005). Other individual
137 strategies that complement community partnership are rolling recruitment, where potential
138 participants can learn about the study and decide later whether to enroll (El-Khorazaty et al.,
139 2007), and dynamic consent, where participants can review their consent over the course of the
140 study (Budin-Ljøsne et al., 2017). In all, these strategies entail centering participants by showing
141 humility and *transparency*.

142 ***Communication Practices***

143 Communication practices may also convey to REM they are welcome or unwelcome in
144 research. Researchers may fail to maintain consistent contact with REM participants, or to follow
145 through with promised emails, resulting in loss of contact (El-Khorazaty et al., 2007). Implicit
146 cues may also send the message that REM participants are unwelcome. Researchers may fail to
147 use the preferred communication modality of REM participants (Erves et al., 2017), including
148 those with autistic family members (Gowen et al., 2019). For instance, Latine families of autistic
149 children report dissatisfaction with therapists who failed to listen and who spoke to one caregiver
150 rather than including the extended family (DuBay et al., 2018). Similarly, Black and
151 Hispanic/Latine adults (Erves et al., 2017), as well as individuals with intellectual disabilities
152 (Nicholson et al., 2013), report that researchers insufficiently explain study activities, with the
153 latter also reporting researchers ignore them in communications. Researchers may fail to use
154 accessible language (Kripalani et al., 2021), share research opportunities with REM (Erves et al.,
155 2017; George et al., 2014), convey the relevance of research to participants, or ensure

156 participants understand their rights (Brannon et al., 2013; Freimuth et al., 2001). These issues all
157 arise from communicative practices of researchers.

158 Creating effective communication involves cultural responsiveness. One strategy is simply
159 to stay in contact throughout research on a regular basis (e.g., weekly or monthly), following up
160 personally, and communicating at the convenience of participants (Brannon et al., 2013; El-
161 Khorazaty et al., 2007; Nicholson et al., 2011; Yancey et al., 2006; Zamora et al., 2016). Other
162 ways to be culturally responsive to REM families of autistic children is by respecting family
163 perceptions about their child and following their communicative norms (e.g., speaking to and
164 facing the entire family versus just one caregiver) (Ratto et al., 2017; Zamora et al., 2016). In
165 addition, addressing autistic individuals themselves is critical to ensure they are interested in
166 participating in research regardless of whether or not their caregiver is the one providing
167 informed consent (Nicholson et al., 2013). Responsive communication could also entail the use
168 of appropriate language register and translation of study materials (Erves et al., 2017; Haack et
169 al., 2014; Kennedy et al., 2010; Nicholson et al., 2011; Ratto et al., 2017), as well as use of
170 dynamic informed consent and assent (Brannon et al., 2013; George et al., 2014; Gowen et al.,
171 2019). In all, researchers have many opportunities to proactively mitigate communication
172 barriers, thereby increasing the accessibility and inclusivity of language research. Together with
173 other barriers and strategies in research design, there is sufficient evidence for implementing
174 these strategies in research with autistic REM.

175 **Illustrative Research Project Example**

176 We developed a community-based approach from 2015 onward, drawing from prior
177 findings on effective research practices for REM, individuals with dis/abilities, and REM
178 families of autistic children, as well as our own research with autistic individuals and REM

179 varying in developmental profiles. The aim of the broader research project was to characterize
180 the language abilities and transition to adulthood of autistic REM with language impairment
181 (Girolamo & Rice, 2022; Girolamo et al., 2020). This entailed partnering with a community
182 organization serving primarily Black and Hispanic/Latine autistic individuals with LI, their
183 families, and community stakeholders to carry out five years of longitudinal research from 2018
184 to 2022 and to develop new directions for research; see Figure 1. This process led to the
185 recruitment of 18 participants, 14 of whom were Black and 4 of whom were Hispanic/Latine.

186 **Developing Trust and Rapport Through Community Partnership**

187 The first author approached a community organization serving primarily REM autistic
188 individuals to partner with them in research. Importantly, the first author obtained an initial
189 meeting through connections from the REM autism community and established a connection by
190 identifying as a former practitioner (and not an “ivory tower” researcher) with personal ties to
191 REM individuals with developmental disabilities. Entering the community by being *in*
192 *community* and showing humility by expressly stating that organizational leadership and staff
193 were experts in their work (versus implying or believing that a research degree conferred
194 expertise on the lives of the autistic REM they served) facilitated building rapport. Most
195 individuals at this organization were Black and/or Hispanic/Latine, with under 10% qualifying as
196 dual language learners. From 2015 to 2018, the first author met multiple times with
197 organizational leadership and staff to discuss study aims and the logistics of study activities. First
198 meetings involved introductions, discussing mutual interests pertaining to outcomes for autistic
199 individuals, and building rapport. A priority for the organization was ensuring that outsiders, like
200 the first author, understood the work of the organization. Developing trust involved leaving
201 space for the organization to tell the first author who they were and who the individuals they

202 served were, as well as by letting the organization decide when there was sufficient trust (i.e., the
203 organization brought up conducting research). Later meetings involved broad study aims and
204 working out the logistics of recruitment in a way that minimized disruption to organizational
205 programming. It was equally important to be flexible, as the organizational programming could
206 change at a moment's notice. In all, these steps, which took place over three years, supported
207 developing a community partnership and led to agreement to begin recruitment in 2018.

208 **Contacting Potential Participants for Initial Recruitment**

209 Per agreement with the organization to minimize disruption to their programming,
210 recruitment entailed distributing and collecting consent-to-contact forms and conducting research
211 off-site in community locations outside of programming hours. At the start of the study in 2018,
212 the first author traveled to the organization, distributed consent-to-contact forms to about 80
213 autistic adolescents and young adults and provided a brief explanation of the study in jargon-free
214 language. The organization did not provide contact information, and staff members did not have
215 the burden of distributing or collecting forms. All study materials were in General American
216 English at the average literacy level of adults in the community (i.e., 4th-grade reading level).
217 Potential participants did not have to decide about participation immediately. Rather, if
218 individuals were interested, they could take forms home and discuss with their families before
219 returning the form to school or contacting the first author. On the form and in contacting the first
220 author, participants and their families could share how and when they wanted the first author to
221 communicate with them (e.g., times during weekdays or weekends), including their preferred
222 modality (e.g., email, text, or phone) and accessibility needs. These visits to distribute and collect
223 consent-to-contact forms took place early in the morning or later in the afternoon to minimize
224 disruption, with several rescheduled visits due to changes in organizational scheduling or

225 inclement weather. Distributing and collecting these forms over three visits led to the return of
226 10 forms, with later check-ins leading to an additional 3 forms.

227 **Providing Personalized Consultation to Potential Participants and Their Families**

228 The first author contacted potential participants and their caregivers to provide a
229 personalized consultation about the study using their preferred communication modality and at
230 their preferred time. The author did not assume any prior research experience or knowledge of
231 research studies, as concepts like confidentiality and privacy have specific meanings that people
232 outside of research do not know (Girolamo et al., 2022a). Rather, the author provided a jargon-
233 free study overview, including detailed explanations of consent, assent, and participant rights.
234 Second, the first author sometimes spoke to not only participants and their caregivers, but also to
235 whoever they felt was a necessary part of their decision-making process (e.g., some requested the
236 author speak to extended family members and siblings). Throughout consultation, the author
237 encouraged potential participants to ask questions prior to scheduling a time to obtain informed
238 consent and assent. Example questions that participants and caregivers asked pertained to exactly
239 what participation in the study would entail, the duration of study activities, and how findings
240 would be used to increase the advocacy base for autistic REM. The first author successfully
241 reached and provided consultation to 11 of 13 (85%) potential participants who had returned a
242 form or contacted the author, all of whom indicated interest in participating. In subsequent years,
243 spontaneous participant referrals led to providing consultation to an additional five participants.

244 **Obtaining Informed Consent and Assent in a Dynamic Process**

245 The first author implemented a dynamic and interactive informed consent and assent
246 process. When research took place in person, this meant traveling to each participant and their
247 caregiver at a time and place convenient to them in their communities. Participants could select

248 places or tell the first author to provide options within walking distance from their homes. The
249 intention was to allow participants to choose a place that felt accessible to them. The first author
250 sent reminders of meeting times by text or phone, and participants could reschedule at any time.
251 Meetings took place evenings or weekends in community settings (e.g., libraries). The first
252 author explained the informed consent and assent forms line by line using jargon-free language.
253 Using graduated forms adapted from TalkBank (n.d.), participants and caregivers opted what to
254 share of their data and how to share their data (e.g., could elect to share de-identified data or
255 recordings). Participants and caregivers completed checks for understanding and were
256 encouraged to ask questions before providing assent and informed consent. In addition, the first
257 author provided them with copies of the forms and reviewed this information at subsequent
258 timepoints. If a participant provided consent upon their first time completing study activities,
259 they reviewed this information before assessment each year and received reminders that they
260 could stop being in the study at any time. This process led to 18 of 18 participants providing
261 informed consent and assent.

262 **Carrying Out Research Activities in Accessible Settings**

263 As with all parts of the study, participants and their caregivers could reschedule at any
264 time. The first author answered questions and concerns on research activities during and after the
265 visit to increase participants' and caregivers' comfort. For example, if a caregiver or participant
266 asked about the purpose of a receptive vocabulary measure, the first author debriefed with them
267 either during or after the task, whichever minimized disruption to the participant. Similarly, if
268 caregivers or participants expressed anxiety about their child's or their own performance, the
269 author listened to their concerns, offered to share a score summary (per institutional review
270 board approval), and reiterated that the only expectation was they try the activities out to the best

271 of their abilities and interests. Upon completion, participants and their caregivers immediately
272 received compensation.

273 To date, all 18 participants who started assessment have completed one or more
274 timepoints of data assessment. The first two timepoints of assessment involved an hourlong
275 protocol of age-referenced language and cognitive assessments, with 10 participants assessed at
276 Time 1 and 7 participants at Time 2. At Time 2, two participants who had completed assessment
277 at Time 1 were unavailable for assessment but interested in the study. At Time 3, which
278 coincided with the onset of the COVID-19 pandemic in spring 2020, 11 participants completed
279 assessment. This necessitated a re-envisioning of the approach for an online modality.
280 Specifically, online assessment meant leaving space for participants and their caregivers to elect
281 how they were going to participate in the study. For example, one participant who had moved
282 during the pandemic introduced the author to their siblings and extended family members, who
283 each asked questions about the study. This process may have enhanced participation in
284 subsequent timepoints of data collection, which were also online due to the pandemic, and
285 referral of others to this study. By the fifth year of data collection in 2022, five participants
286 participated in their first time-point of data collection, four in three timepoints of data collection,
287 two in four timepoints of data collection, and seven participants in their fifth timepoint of data
288 collection.

289 **Following Up with Participants and Community Partners**

290 Following study visits, the first author remained in contact with participants by sending
291 study communications including a “thank you” card after each session, birthday cards, seasonal
292 greeting cards (including those specific to holidays that participants celebrated), and general
293 greeting cards. These written communications served a dual purpose. First, they ensured that

294 contact information was correct, in that participants were invited to provide updated contact
295 information. Second, these cards provided a friendly, low-stakes way of keeping the study in
296 participants' minds. Further, the first author checked in with participants and their caregivers
297 during the beginning of the COVID-19 pandemic by phone or text. At the same time, the first
298 author also kept in touch by in-person visits, mail, and email with the community organization to
299 check in and revise the partnership as needed. For example, change in the structure of the
300 organization necessitated streamlining communication to minimize burden to the organization.

301 This strategy led to staying in contact with 16 of 18 participants over the course of
302 five years. One participant had contact information that changed, and one stopped responding
303 during the pandemic. However, participants and caregivers typically showed enthusiasm in ways
304 that indicated comfort with the study. One participant sent an unprompted email about their
305 interest in participating in the study and life updates. Caregivers and participants also sent text
306 messages and cards to the first author during the holidays, sharing updates (e.g., experiences with
307 trying to access services). One caregiver shared that although their child typically liked being
308 alone and would disengage from social interactions, the participant reported enjoying the study
309 visits. Others asked detailed questions about the life of the first author (e.g., whether the first
310 author celebrated a given holiday), so that they could be culturally sensitive.

311 **Summary**

312 Though the sample is small, this community approach led to rich interactions with
313 participants and their families. In particular, investing targeted time and effort to partner with a
314 community organization and allowing participants to elect when and where to complete study
315 activities with transparency throughout the process facilitated sustained trust and rapport. This
316 approach is one illustrative example of what a community-based approach might look like in

317 language research when working with autistic REM. In this present case, this approach laid
318 ground for development of ecologically valid research questions and inclusive research methods,
319 congruent with “slow science” (Frith, 2020; Leite & Diele-Viegas, 2021).

320 **New Directions and Lessons Learned**

321 Initially, the research from the community-based approach focused only on individual
322 differences (Girolamo & Rice, 2022), which is consistent with autism research (Anderson et al.,
323 2018). However, REM autistic and neurodivergent individuals, as well as their family members
324 (e.g., Black parents of young minimally verbal autistic children, who are not part of the
325 neurodiversity self-advocacy space) were highly interested in research with their communities.
326 We describe some of the newly developed areas of research, which are being conducted with
327 new partnerships, as well as lessons learned from this ongoing work; see Figure 1. All activities
328 take place at the time, convenience, and preferred modality of community partners.

329 **New Directions in Research: Social-Ecological Factors**

330 One new line of research arising from the community-based approach aims to holistically
331 characterize social determinants of health in autistic REM with language impairment. A clear
332 finding from the initial study was that assessing only individual difference measures was
333 insufficient for understanding the transition to adulthood in this population. Interactions with
334 participants and their families revealed that environmental influences impacted their responses
335 on individual difference measures, such as a parent sharing that a participant would never
336 socialize on their own independently due to racism and ableism in society, which meant their
337 scores on an adaptive behavior measure were lower due to social-ecological effects versus
338 individual differences. Therefore, we addressed environmental factors in the following ways.

339 In attending a community event for REM in the health professions, the first two authors

340 met an REM neurodivergent practitioner. They discussed common interests, as each worked with
341 autistic REM. Over several years, regularly inviting the practitioner to engage with them on the
342 practitioner's terms led to the joint decision to build a larger research team to pursue
343 investigation examining the role of environmental factors in outcomes that included person-
344 centered measures. This directly supported the practitioner's goal of addressing interests relevant
345 to themselves and their community, as well as the interests of all authors. Research team
346 members included other REM practitioners, autistic and neurodivergent individuals, parents of
347 autistic and neurodivergent children, and established researchers and students who wanted to
348 learn about participatory approaches in clinical research; this included all co-authors of this
349 report. The team set ground rules for inclusion of all perspectives, with the expectation that the
350 most under-heard voices would be centered in this work.

351 Setting ground rules entailed inviting team members to join the project in a graduated
352 procedure: (a) identifying potential team members and meeting with them individually on their
353 terms to talk about conducting research (e.g., at an off-campus location following their
354 preference for modality, whether in-person, by Zoom, phone, or email), (b) introducing team
355 members to one another, (c) assessing potential for developing trust and rapport with more
356 dominant team members (e.g., white academic researchers) among more minoritized team
357 members (e.g., autistic REM), (d) obtaining agreement from each team member that the team
358 members who research tends to systematically exclude would have priority in terms of meeting
359 agendas, speaking time, and project development, (e) working with more minoritized members
360 to identify ways to remove the burden of conducting research (e.g., going over project
361 development in individual meetings versus sending a written document for feedback; Teague et
362 al., 2018), and (f) checking in on a monthly basis to gauge the sense of comfort of minoritized

363 team members with the project and fellow team members. Importantly, setting ground rules
364 meant implementing a “zero tolerance” policy for discrimination and disrespect. If at any point a
365 team member does not feel respected or safe, then research will halt until a resolution acceptable
366 to them is reached.

367 With these rules in place, the team worked collaboratively to identify measures that
368 aimed to recognize the agency of autistic REM with language impairment and their families.
369 This led to identifying validated person-centered measures that were relevant to the experiences
370 of autistic REM, and importantly, that autistic REM from the initial study had shared in years of
371 communication with the first author. Consequently, the research team developed a novel
372 interview support structure to enhance the accessibility in terms of language and cultural
373 sensitivity of the Self-Determination Inventory (Shogren & Wehmeyer, 2017). In an iterative
374 process, research team members identified potential issues with accessibility at the item-level,
375 generating a scaffolded interview support structure to allow multiple opportunities for
376 questioning and discussion prior to responding to an item. In this ongoing partnership, autistic
377 and neurodivergent REM (who are not participants) are invited to serve as research partners,
378 with their investment in the project recognized by authorships and roles on funding applications.
379 The objective of this partnership was to share the experiences of autistic REM in a way that did
380 not aim solely to pathologize. However, we suggest that fully valuing community partners
381 involves including community partners in leadership roles (Nicholson et al., 2013).

382 **New Partnerships with Leaders of Geographic and Virtual Communities**

383 In addition to new research, we expanded our partnerships to include community leaders
384 of geographic regions and of virtual communities. Sharing our research to multiple constituents
385 at community events opened new pathways to developing additional community partnerships.

386 First, the Black practitioner from the social-ecological factors project coordinated a meeting
387 between the authors and a local community leader with decades of experience in the public
388 schools. The community leader wanted access to resources and supports for Black parents of
389 minimally verbal autistic students, as well as support in applying for grants to obtain resources
390 (e.g., augmentative and alternative communication devices) for these students. The authors
391 provided resources on the terms of the community leader, who then offered to partner in
392 research. Similarly, the practitioner connected the authors with an REM parent of autistic
393 children who is a leader of a large virtual community, which includes a parent support group and
394 programming for parents of autistic children. Again, the authors introduced themselves over time
395 and provided resources on the terms of parent.

396 We note that while centering the priorities of autistic individuals themselves is critical, in
397 these scenarios, partnering with community leaders and parents was important. This is because
398 autistic REM, such as a minimally verbal five-year-old autistic child, are extremely unlikely to
399 independently attend a community talk or enter the self-advocacy space (in which autistic REM
400 with language impairment like participants in our research are scarce). Thus, we trusted that
401 family members of autistic REM who knew them best would be able to support autistic REM in
402 communicating what their interest was in research. As for partnering with autistic individuals
403 themselves, speaking about the intersection of race and dis/ability in the health professions led to
404 connecting with an REM autistic self-advocate who co-founded a “for us, by us” autistic self-
405 advocacy organization. As with the first community leader, partnership aligned to mutual
406 interests and areas of expertise. The long-term aim is to implement sustainable partnerships
407 where researcher and community partners are equally valued, as reflected in grants, publications,
408 and bring mutual benefit to communities (Ellis et al., 2021).

409 Lessons Learned

410 Overall, the initial study and subsequent research with new community partners, provide
411 an example of how one might engage autistic REM in research. Though we recognize that
412 researchers face institutional barriers, amid systemic barriers to engaging autistic REM in
413 research, we offer some lessons learned and a flowchart of possible questions researchers might
414 use to develop community-based approaches; see Figure 2.

415 *Community Partnership*

416 Overall, researchers must have appropriate expectations for what is feasible in
417 community-based approaches (Frith, 2020; Leite & Diele-Viegas, 2021). Clearly, this research
418 was more labor intensive than convenience sampling and yielded a sample size that is smaller
419 than many researchers may need to satisfy funders. However, regular contact with this sample
420 led to rich information and research that is ecologically valid to not just scientists, but to autistic
421 REM themselves, in terms of how autistic REM see themselves (Buchanan & Wiklund, 2020)
422 and their lived experiences (George et al., 2014; Gowen et al., 2019; Haack et al., 2014).

423 One question researchers can ask themselves is whether they truly partner with autistic
424 REM on a study from conception through dissemination. If so, then researchers should consider
425 whether the norms of the project (e.g., communication frequency and modality) reflect the
426 preferences of autistic REM. If not, then researchers should consider whether the study engages
427 autistic REM and jointly identify areas for fuller partnership, following the goals and priorities of
428 autistic REM. If researchers do not engage autistic REM, they could engage autistic individuals
429 who are white and consider how missing the perspective of autistic REM on the research team
430 affects their research. Similarly, researchers can also ask themselves how not engaging autistic
431 individuals impacts their science.

432 ***Be a Good Research Partner***

433 A second, broad lesson learned is the importance of being a good research partner. This
434 involves ensuring that the spirit of community partnership, which depends on cultural humility
435 (Erves et al., 2017; Freimuth et al., 2001; George et al., 2014), continues throughout a research
436 study, from dynamic consent to research activities and dissemination.

437 **Dynamic Consent.** If scientists invest the appropriate time and energy to get to know
438 their target participants, communication preferences, and accessibility profiles, scientists can
439 implement dynamic consent and assent. In this process, it is critical to consider how to know
440 autistic REM will show understanding of research jargon pertaining to consent, assent, and
441 participant rights. Relevant questions are whether there are consent and assent materials
442 accessible at an individual level, as well as time to ask questions. Researchers should be
443 proactively mindful of cultural norms. For instance, if a participant and their family are of a
444 culture unlikely to ask questions, regardless of level of understanding, *a priori* preparing
445 questions pertaining to what consent is and is not could be useful. Next, a researcher should
446 consider whether a participant shows understanding *after* implementing consent materials and
447 processes accessible to them. If not, then researchers should revise materials and procedures,
448 ideally with autistic REM community partners.

449 **Research Activities.** A second area for being a good research partner is research
450 activities. Researchers must consider whether activities align to the preferences and priorities of
451 autistic REM as much as possible, while also considering the requirements of the research. For
452 instance, some participants indicated they largely preferred meeting in person during the
453 COVID-19 pandemic. Clearly, that was not possible. In such cases, researchers should consider
454 whether there are “good” reasons for not following participant preferences and transparently

455 explain that reasoning to participants. In our case, transparency allowed for reaching consensus
456 on the modality of research activities. However, if, for example, a participant prefers to complete
457 research activities at a place accessible to them and there is no reason for research activities to
458 take place at a fixed location, then researchers should revise activities in the spirit of inclusivity.

459 **Dissemination.** A third area that is critical for community partnership is ensuring
460 research findings are impactful for autistic REM themselves. To start, researchers must ask
461 whether the community wants research findings to be broadly disseminated, and if so, what their
462 priorities are for dissemination. If not, researchers might ask if the community wants some type
463 of advocacy from findings and then advocate following the terms of the community. In our case,
464 autistic REM on the research team, community stakeholders, participants, and their families felt
465 strongly about the experiences, abilities, and perspectives of people like them having a seat at the
466 table. This meant sharing not just the empirical findings, but also *advocating* for implementation
467 of community-based strategies as scientifically rigorous and *translating* this appreciation into
468 engagement strategies. For example, knowing that one participant was proud of being in the
469 study and a role model for their nieces, the first author scheduled time at each assessment session
470 to speak with their nieces with family permission (though they were not part of research). In
471 addition, it was important for the authors to be highly responsive to requests from community
472 partners for resources or assistance to support autistic REM. An example of this was finding
473 resources for autistic REM to support their young adulthood goals, as well as co-developing
474 research projects with autistic REM. These methods likely supported retention, consistent with
475 prior work with families of autistic REM (Zamora et al., 2016).

476 ***Mitigate Biases***

477 Of course, an underlying lesson from this research is that all researchers in

478 communication sciences and disorders have the responsibility of co-constructing an accurate
479 narrative of REM engagement in research and practice with REM and other stakeholders in their
480 lives. That is, researchers must de-construct the narrative that REM are less willing than white
481 counterparts to participate in research through actions (Wendler et al., 2005). Scientists should
482 critically examine how their own judgments of who is a “good” research participant can lead to
483 research design that serves to exclude autistic REM (Joseph & Dohan, 2009; Zamora et al.,
484 2016). Acting upon this bias could mean working with community partners to build inclusive
485 research methods that leverage community strengths, such as conducting health research that
486 supports community priorities on the weekend at community events like farmers markets (Lewis
487 Jr & Oyserman, 2016).

488 **Conclusion**

489 In developing a multi-year community approach to longitudinal language research with
490 autistic REM with language impairment when approaching autistic individuals themselves, we
491 generated new research directions and partnerships. Working with community partners
492 underlined the importance of identifying barriers preventing autistic REM with language
493 impairment from achieving their goals, as well as of developing person-centered measures that
494 yield valid results by being culturally sensitive to autistic REM. The new directions for research
495 from this approach has strong implications for building meaningful research. It is our hope that
496 the methods and lessons learned are useful to others endeavoring to do this type of research.

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502 **Data Sharing Statement**

503 All data are reported and available in the article.

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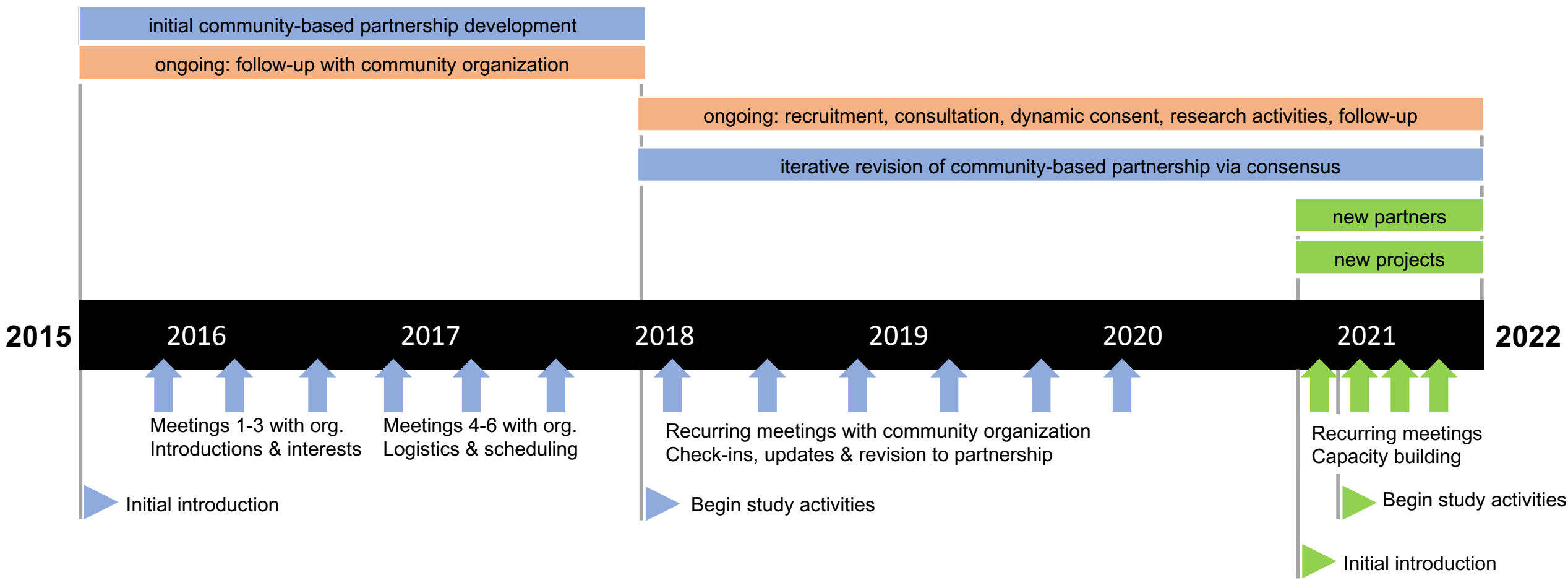
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695 6

696 **Figure Legend**

697 **Figure 1. Overview of an illustrative community-based approach**

698 *Note.* Blue and green indicate individual projects. Orange indicates ongoing activities, with
699 annual assessment per participant.

700 **Figure 2. A flowchart for thinking through community-based approaches.**





Development of community-based approaches



Community partnership



Dynamic consent



Research activities



Dissemination



Does the study partner with autistic REM throughout?



Does the participant show understanding of research jargon & participant rights?



Do activities align to participants' preferences as much as possible given the nature of research?



Does the community want research findings to be disseminated?

Consider if norms reflect autistic REM preferences

Does the study engage autistic REM?

Obtain informed consent & assent

Are there accessible materials & time to ask questions?

Proceed with research

Are there viable reasons why not?

Check diss. aligns to community priorities

Does the community want advocacy from findings?

Identify areas for fuller partnership

Does the study engage autistic individuals?

Obtain informed consent & assent

Is there understanding after using accessible materials?

Explain, consensus before proceeding

Revise activities to align with preferences

Advocate on community terms

Identify other pathways for sharing research

Consider how positionality impacts research

Consider how absence impacts research

Obtain informed consent & assent

Revise materials & procedures for accessibility