Published in final edited form as:

J Pediatr Health Care. 2016 ; 30(5): 495–498. doi:10.1016/j.pedhc.2016.05.004.

Effective Practices to Improve Recruitment, Retention, and Partnerships in School-based Studies

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Keywords

Community-Based; School-based; Recruitment; Intervention Fidelity; Retention

Schools are essential settings for research that tests the effectiveness of health educational interventions in natural settings (classrooms). There are several reasons schools are important research settings. First, public schools serve over 50 million youth and private schools serve an additional 5 million youth (National Center for Education Statistics, 2015). Most school-aged children are served by formal schools and spend most of their waking hours in school settings. Second, schools serve as a focus of community activity and identity. Many schools host community events including: after school programs, summer programs, community meetings, and official polling locations for elections. Third, school settings enable health programs to efficiently reach large numbers of children and their families. Strong partnership with school personnel and stakeholders enhance the reach and impact of these programs. While schools are an important setting for recruitment efforts, there are also important barriers to using schools as a setting for research projects. The purpose of this paper is to describe challenges to implementing scientific studies in schools and ways to develop effective practices to improve recruitment, retention, and sustain partnerships in school-based studies. A series of practical strategies for effective collaboration between schools and research projects will be shared.

School and Scientific Demands

With a call for broader dissemination and translation of research into real-world settings, the need for school-based studies has increased. Concurrently, the need for scientific rigor has

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led to complex research designs, randomization, theory based interventions and sophisticated measurement. Increasing scientific rigor applied to school settings has introduced additional concerns and complexities that schools and investigators may not have accounted for in the past. The need for randomized controlled trials, long-term follow up, objective and biological measurements instead of questionnaires, and multi-level analysis plans introduce challenges and barriers to school-level understanding and ultimately academic-school partnership success. Without understanding the rigor required of research methods, school stakeholders may have concerns about withholding effective programs, delayed treatment, or comparing a “new” program to an established program. Studies that require pulling children out of class is a major concern of schools striving to meet core curricular demands.

Research design demands may be at odds with the purposes, and policies of the schools. Under current federal and state laws, schools face pressures on standardized test performance and negative consequences for schools that do not produce adequate yearly progress. Schools are focused on meeting core curricular standards and policies. Participation in a research study may further stretch resources (instructional time) and pose concerns about the impact on academic progress measures. For example, schools often do not want to use curricular time during regular school hours as time dedicated to a research intervention. To address school concerns, researchers and school staff should engage in active problem solving to design of protocols and procedures from the earliest stages. Early involvement of school stakeholders in planning phases strengthens the academic-research partnership. It also sets the stage for effective recruitment, improved participation in protocols, and program sustainability.

Building Schools into Recruitment and Retention Plans

One of the most challenging obstacles for researchers conducting school-based studies is obtaining a sufficient sample size. Generally research designs require an overall sample size for sufficient statistical power but also an adequate sample for each school to ensure adequate representation of that school, i.e., one can assume that the sample reflects the student population at a specific school. Meeting these two demands in the “real world” of school-based research is a significant challenge. Engaging school teachers and administrators into the student recruitment process is critical. Schoeppe, Oliver, Badland, Burke, and Duncan (2014) state that successful recruitment and retention strategies should focus on building trustful relationships with school partners, parents and children, having project champions at the school(s), and working with the school partners to optimize consent and follow-up procedures.

Too often, school partners and stakeholders are not invited to recruitment and retention planning meetings until problems arise. This is a mistake. School staff should be engaged as early as possible. Teachers and administrators can prevent many problems by creatively meshing school operations with research protocols. Researchers should foster ownership of the research program within the school, resulting in the school staff becoming advocates of the program to students, families and the community. Although an academic institution may promote evidenced-based practice and cutting-edge programs, it is the schools that are

valued and trusted by families in local communities. Therefore, the school's support and promotion of the research program to the students and their families is critical.

To ensure success, school partners should be actively involved in the development of recruitment plans from the initial planning phases. For example, school leaders and students can provide input on how best to present the study to the student body or potential participants. Creative ideas for recruitment plans generated from students have included attending sporting events, lunch periods, parent open houses, and use of text messaging services that is commonly used for emergency closures of schools.

School staff and stakeholders should work closely with academic researchers to tailor all recruitment materials sent home to families including: information packets, compensation for time and effort, and language on assent/consent forms. The academic institution's human subject's committee will have useful guidelines on conducting research with minors in the school. Additionally each school district may have a local research review board that must approve the school's involvement. School staff and stakeholders are essential for navigating these more local approval processes.

School staff is uniquely qualified to understand the various perspectives of the local community. School leaders may communicate support for projects through school newsletters sent to parents and families, letters of support sent home with project information packets, and being present during recruitment sessions at the schools. For example, principals and teachers should attend recruitment assemblies or recruitment sessions and briefly speak to attendees in order to explain the project and why the school is partnering with the research team. Their leadership is invaluable for: explaining the school's participation in the research program to students and families, identifying valued compensation for time and effort, and problem solving barriers to participation. For example, in some rural schools, gift cards as compensation for time and effort may not be appropriate if no local stores are easily accessible.

Consent forms are generally recommended to be written at a 6th grade reading level (Foe & Larson, 2016). However, consent forms continue to routinely be written at a higher level than recommended (Foe & Larson, 2016; Larson, Foe, & Lally, 2015). In communities characterized by low literacy, English as second language, or low parent education levels, consent form language is often confusing and may be intimidating to parents and guardians. As partners in drafting recruitment materials, school leaders and stakeholders can provide language that is more understandable for consenting parties to better meet the spirit of informed consent. To fully engage the schools in the consent process and seek their proactive voice, a partnership should be forged using a community participatory approach involving schools in designing the recruitment plan, tailoring recruitment strategies, and drafting the consent forms prior to submission for human subject approval (De las Nueces, Hacker, DiGirolamo, & Hicks, 2012; Jagosh et al., 2012).

With a fully engaged partnership, schools can help develop and strengthen subject retention plans to minimize attrition. Schools have developed plans and procedures to inform parents and the local community of activities, closures, and events. These plans and procedures

include texting systems to cell phones, voice messaging, daily announcements, local broadcasting to radio and television, and other tracking systems of student and family information. For example, schools have developed tracking systems for daily attendance, enrollment in courses, and movement throughout the school building. These same comprehensive systems should be used to support research study: recruitment, participation and retention. With systems already in place parents, students, and schools are accustomed to the routines and expectations leading to a more seamless and sustainable recruitment and retention plan.

School-Academic Partnerships for Sustainability

Local schools often view partnerships with academic institutions and researchers as “onesided.” Too often, research projects targeting schools are written by researchers with little or no input from the schools or school stakeholders. Research questions and methods are of paramount importance to researchers who submit proposals for grants or programs. Most often, funded programs are time limited, designed for a set number of years. School personnel are wary of short term projects. From their perspective, research projects can disrupt school functions and then disappear in a year or two. What is lacking from many of these time-limited projects is the active voice of the local schools and a commitment to true partnership and sustainability. What many researchers fail to recognize is that building a true commitment to partnership and sustaining that partnership will over time build a stronger program of research. To show commitment to partnership and sustainability researchers can take several steps, beginning with the initial introductory meetings.

First, when seeking entrée to the school and students for the program, one must clearly articulate the how the program meets the academic standards, academic needs, or other expressed concerns of the school community. For example, can outcomes included in the program be shared with the school to meet the school’s reporting needs? Schools are mandated to report on many academic and health outcomes on a regular (annual or every other year) basis. Researchers can provide information to the school about how their program or study may be able to help the school in meeting these reporting needs. For example, some common reporting measures include body mass index, vision, hearing, physical education, fitness, vaccinations, and other academic outcomes that may be part of research data that can be shared with the school.

Second, researchers should build sustainable programs and delivery methods that the schools can modify and maintain for future use. School stakeholders frequently express frustration with academic programs because the programs and studies are short-term, provide little long-term benefit, and do not provide the needed infrastructure or support to sustain any program efforts. All too often, once the academic partnership ends, the momentum from the program is lost and long-term sustainability suffers. This problem can be confronted by engaging schools in partnerships so that the programs and delivery methods that can be carried on by the schools or community stakeholders in the absence of the researchers. Moreover, the researcher can ensure that teachers have been trained to carry the program into the future, thus building the school’s capacity to sustain the program and its delivery to the student population once funding ends.

Programs that train teenagers to serve as peer mentors or peer health coaches to deliver health curricula younger teens or children is a sustainable, modifiable, and evidenced-based delivery method (Petosa & Smith, 2014; Smith, 2011; Smith & Holloman, 2013; Smith & Petosa, 2016). Forming health advisory councils to address school health needs is another modifiable, evidenced-based approach that is sustainable to meet school health needs (Smith & Holloman, 2014). Building school stakeholder capacity to continue programs or delivery methods is essential; providing training, sharing of program materials, and helping schools develop future plans for modifications or continuation of the program is an important ongoing role of academic partners.

Third, no research is complete until the results are disseminated. To strengthen the trust and partnership with the schools and local communities, the dissemination of findings should include the school partners and local communities (McDavitt et al., 2016). Schools want to hear how their participation helped make a difference. To be fully collaborative, dissemination should involve the school partners in a two-way dialogue about the research findings (McDavitt, et al., 2016). It has been our experience that many local communities will provide media coverage of the project via local newspapers and radio. Community health coalitions and health departments are avenues for local dissemination. Finally, with a strong school-academic partnership, school partners may join in the dissemination of findings at professional conferences and share findings to parents and families through school websites and newsletters.

Conclusion

The purpose of public schools is to educate children. Schools are also important setting to conduct research targeting youth and families. Research studies conducted in the schools may or may not be at odds with this mission. Researchers need to be keenly aware of how their proposed study will alter schools everyday operations. For research conducted in schools to be successful, a strong school-academic partnership must be formed and sustained. To support this partnership, academic partners and researchers must engage schools from the initiation of the research topic, to the development of recruitment and retention strategies, onto program implementation procedures, and ultimately to the dissemination of findings. With thoughtful capacity-building, school-academic partnerships will thrive and schools will be empowered to sustain evidenced-based delivery methods and programs.

References

- De las Nueces D, Hacker K, DiGirolamo A, Hicks LS. A systematic review of community-based participatory research to enhance clinical trials in racial and ethnic minority groups. *Health Services Research*. 2012; 47:1363–1386. [PubMed: 22353031]
- Foe G, Larson EL. Reading level and comprehension of research consent forms: An integrative review. *Journal of Empirical Research on Human Research Ethics*. 2016; 11(1):31–46. [PubMed: 27106889]
- Jagosh J, Macaulay AC, Pluye P, Salsberg J, Bush PL, Henderson J, Sirett E, Wong G, Cargo M, Herbert CP, Seifer DD, Green LW, Greenhalgh T. Uncovering the benefits of participatory research: Implications of a realist review for health research and practice. *Milbank Quarterly*. 2012; 90(2): 311–346. [PubMed: 22709390]

- Larson E, Foe G, Lally R. Reading level and length of written research consent forms. *Clinical and Translational Science*. 2015; 8(4):355–356. [PubMed: 25580939]
- McDavitt B, Bogart LM, Mutchler MG, Wagner GJ, Green HD, Lawrence SJ, Mutepefa DD, Nogg KA. Dissemination as dialogue: Building trust and sharing research findings through community engagement. *Preventing Chronic Disease*. 2016; 17:E38. [PubMed: 26986541]
- Petosa RL, Smith LH. Peer mentoring for health behavior change: A systematic review. *American Journal of Health Education*. 2014; 45:351–357.
- Schoeppe S, Oliver M, Badland HM, Burke M, Duncan MJ. Recruitment and retention of children in behavioral health risk factor studies: REACH strategies. *International Journal of Behavioral Medicine*. 2014; 21(5):794–803. [PubMed: 24198037]
- Smith LH. Piloting the use of teen mentors to promote a healthy diet and physical activity among children in Appalachia. *Journal for Specialists in Pediatric Nursing*. 2011; 16:16–26. [PubMed: 21294832]
- Smith LH, Holloman C. Comparing the effects of teen mentors to adult teachers on child lifestyle behaviors and health outcomes in Appalachia. *Journal of School Nursing*. 2013; 29(5):386–396. [PubMed: 23307890]
- Smith LH, Holloman C. Piloting "Sodabriety": A school-based intervention to impact sugar-sweetened beverage consumption in rural Appalachian high schools. *Journal of School Health*. 2014; 84(3): 177–184. [PubMed: 24443779]
- Smith LH, Petosa RL. A structured peer-mentoring method for physical activity behavior change among adolescents. *The Journal of School Nursing*. 2016 (in press).
- United States Department of Education, National Center for Education Statistics. *Digest of Education Statistics: 2013*(NCES2015-011), Chapter 1. Washington DC: National Center for Education Statistics; 2015.