

A Review of Factors Contributing to High Attrition Rates in Home Visit Interventions

Mariana Perez, Nursing Student; Dr. Adejoke Ayoola, Advisor; Calvin College, Grand Rapids, MI

Background

Home visit interventions have gained traction as a health care delivery and prevention model because they decrease barriers to access and increase mother-child health outcomes.

However, home visit programs suffer from high attrition rates. Drop out rates have been found to range from 20% to 67%, with rates on the higher end not being uncommon. This poses a threat to the potential gains of home visit interventions.

Objective

To better understand the reasons and factors why low-income women drop out of home visit interventions.

Methods

A review following PRISMA guidelines was conducted. Four databases were searched: CINAHL, MEDLINE (Integrated with Web of Science), PsycINFO, and PubMed.

Search terms included: nurse home visit, home visitation, attrition, dropout, women, mothers, success

Literature Review Exclusion Process

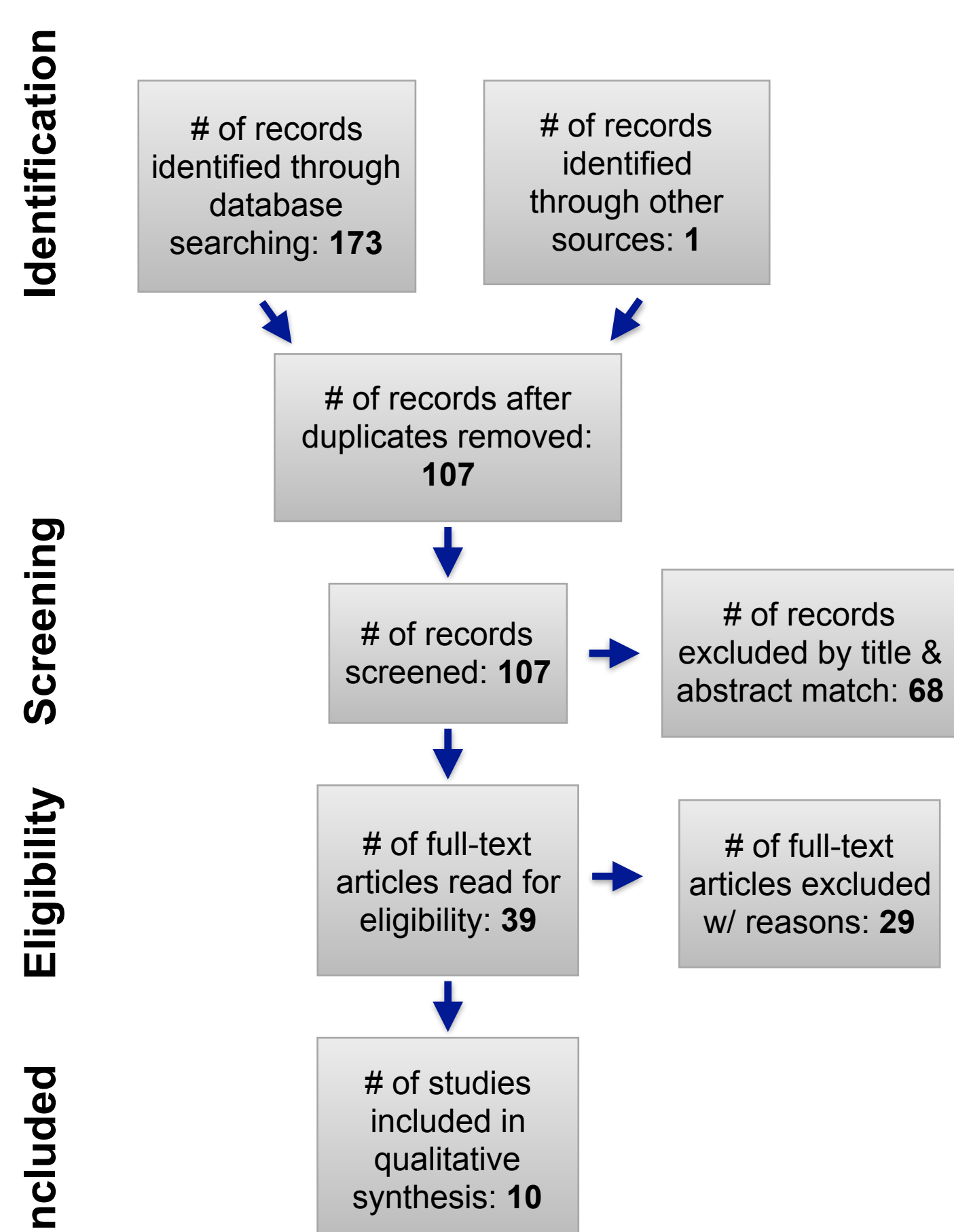


Figure 1: A summary of exclusion process for article reviewed following PRISMA guidelines

Findings

n=10		n	%
Study design	Quantitative	8	80
	Qualitative	1	10
	Both	1	10
Level of Evidence	I Systematic review of RCT	0	0
	II Single RCT	1	10
	III Quasi-experimental	0	0
	IV Single correlational studies	4	40
	VI Simple qualitative & descriptive	5	50
Program Studied	Nurse Family Partnership (NFP)	3	30
	Family Nurse Partnership (FNP)	1	10
	ProKind (modeled after NFP)	1	10
	SafeCare+	1	10
	CAPEDP	1	10
	Pride in Parenting	1	10
	Healthy Families America	1	10
	NA	1	10
	Sample Size	≥200	8
100-199		0	0
<99		1	10
NA		1	10
Reported Mean Attrition Rates	0-25%	1	10
	26-50%	3	30
	51-75%	3	30
	76-100%	0	0
	NA	3	30
Range of Mean Age in Years of Mothers	17.5-20	2	20
	21-25	5	50
	26-30	1	10
	NA	2	20
Race/Ethnicity of Mothers*	African American	3	15
	Hispanic	2	10
	White	5	25
	Other	5	25
	NA	5	25
Income level description of mothers**	All low-income	6	60
	Some low-income	3	30
	NA	1	10

Table 1: Characteristics of studies included in this literature review.
 *At least 10% of the sample required in order to be listed. Ethnicities making up less than 10% are listed under "Other," which includes Native American, Asian/Pacific Islander, and biracial.
 **Reporting of income level varied. Six of the reviewed studies exclusively included only mothers that were identified as low-income. Three of the reviewed studies included a mix of low and high income participants, and 1 study did not address income levels.

of Articles and Reported Risk Factor

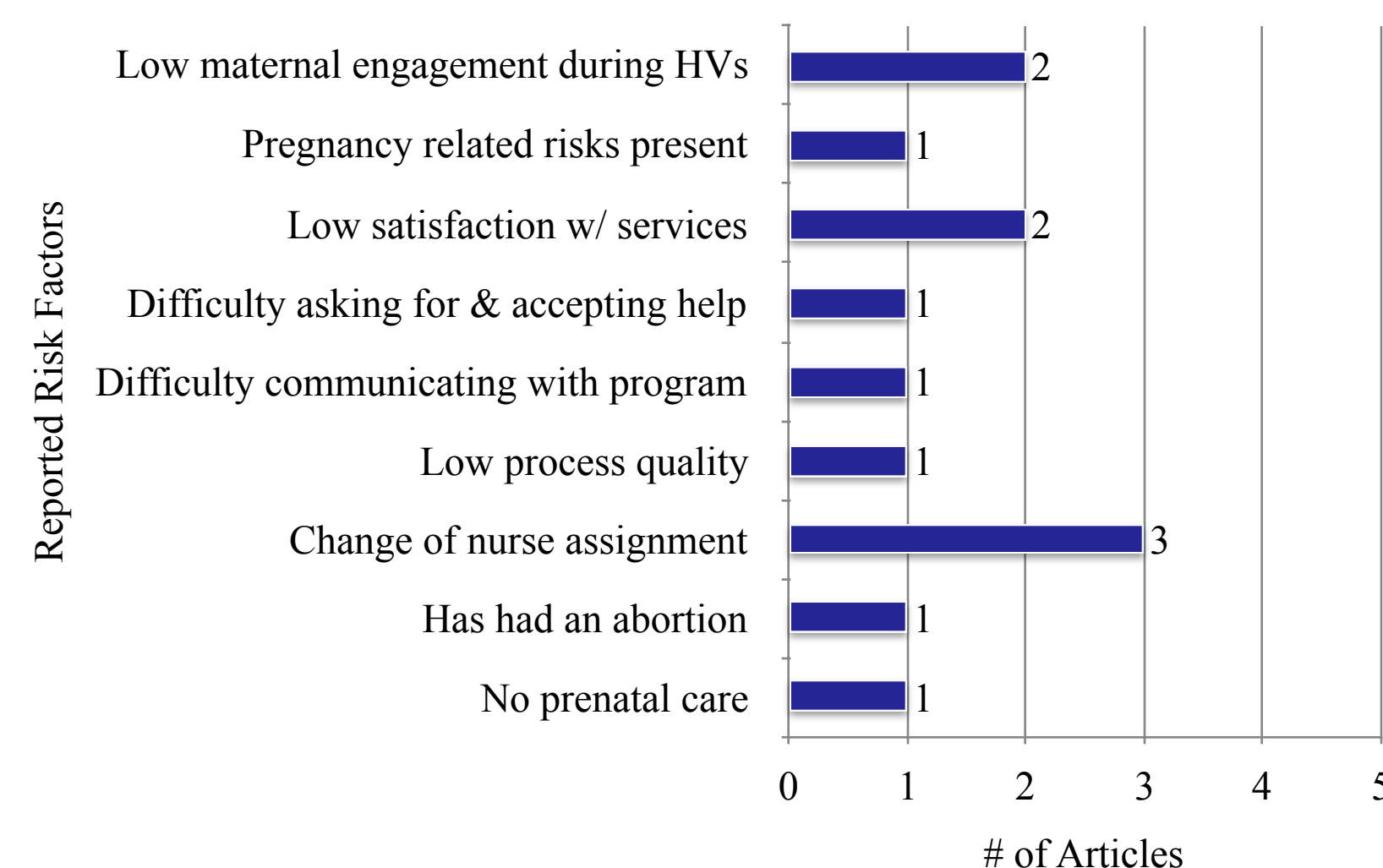


Figure 2: Risk factors, excluding characteristics found in Table 2, that increase a woman's probability of dropping out of an intervention.

Table 2: Characteristics of Women who Dropped Out

n=10	n	%
African American	3	30
Hispanic	2	20
White	3	30
Low-income	4	40
Drug/alcohol/tobacco use	3	30
No smoking use during pregnancy	1	10
Low maternal age	3	30
High maternal age	1	10
Unemployed/student status	1	10
Unmarried & single	2	20
Lives with extended family/mother	1	10
Lives alone	1	10
Mental illness present	2	20
Low mental illness score	1	10
Cognitive impairment	1	10
Larger number of children	1	10
Smaller number of children	1	10

Table 2: Characteristics of women who dropped out of an intervention.

Table 3: Reasons for Dropping Out

n=10	Participant-reported		Provider-reported	
	n	%	n	%
Content was not of interest/program not helpful	2	20	—	—
Mother did not desire visits after infant birth	1	10	—	—
Nurse assignment changed	2	20	1	10
Nurse/program did not meet expectations	2	20	—	—
Nurse stopped coming	2	20	—	—
Unspecified	1	10	—	—
Trust in nurse lost	1	10	1	10
Feeling overwhelmed/no time to manage appointments	3	30	2	20
Program was a family intrusion	—	—	3	30
Excessive missed appointments	—	—	5	50
Participant mobility/left service area	—	—	5	50
Disruptive external influences	—	—	1	10
Active withdrawal	—	—	5	50
Passive withdrawal	—	—	2	20
Lost to follow up	—	—	4	40
Maternal death	—	—	1	10
Mother lost custody of infant	—	—	4	40
Death of fetus/child	—	—	3	30
Lack of program capacity	—	—	2	20

Table 3: Comparison of reasons given by both women and home-visitors for dropping out of an intervention.

Discussion

- There are many ways to report attrition. In this review, a distinction was made between participant and provider reported reasons for attrition.
- Different studies involving low-income women in home-based interventions have reported varying and conflicting reasons why women drop out (Table 2).
- In this review, a consistent demographic characteristic of women who dropped out was low maternal age.
- In this review, a consistent reported reason for dropping out related to the nurse-client relationship. Of the 10 reviewed studies, 7 made mention to the nurse-client relationship (Table 3).
- Reasons and factors for attrition have been attributed to either participants or providers in most research to date. Limited studies have been done to explore the influence of community attributes, such as violence, on attrition.

Implications

- Some reasons for dropping out, such as leaving service area or lost to follow up, cannot be controlled by providers. Efforts to decrease participant attrition should start by evaluating the role of provider factors on attrition.
- Evaluations to further discern reasons for dropping out need to be developed. In this review, "active withdrawal," and "excessive missed appointments," do not clearly reflect a participant's reason(s) for dropping out.
- Interventions to increase retention need to be developed. Special attention needs to be paid to participants of low maternal age. They may face additional barriers that further increase their risk of attrition.
- Research needs to be done to develop strategies that promote a strong nurse-client relationship.
- Reasons why women drop out of a home visit intervention are complex. As such, in the analysis of attrition, nurse, program, and community factors need to be taken into account.

Funding

Robert Wood Johnson Foundation, Calvin College Science Division Summer Research Grant

