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Challenges faced by healthcare providers offering infant feeding counseling to HIV-positive women in sub-Saharan Africa: A review of current research

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Abstract

Exclusive breastfeeding (EBF) has been identified as the optimal nutrition and critical behavior in attaining human immunodeficiency virus (HIV)-free infant survival in resource-limited settings. Healthcare providers (HCPs) in clinic- and community-settings throughout sub-Saharan Africa (sSA) provide infant feeding counseling. However, rates of EBF at 6 months of age are suboptimal. Healthcare providers (HCPs) are uniquely positioned to educate HIV-positive mothers and provide support by addressing known barriers to EBF. However, limited evidence exists on the experiences faced by HCPs in providing counseling on infant feeding to HIV-positive women. Our objective is to describe experiences faced by HCPs when delivering infant feeding counseling in the context of HIV in program settings in sSA. We searched a range of electronic databases, including PubMed, CINAHL, and PsycINFO from January 1990 to February 2013, in addition to hand-searching, cross-reference searching and personal communications. The search was limited to publications in English. Empirical studies of HCP experiences providing infant feeding counseling in prevention of mother-to-child transmission of HIV (PMTCT) programs in sSA were selected. We identified 10 peer-reviewed articles reporting HCP challenges in infant feeding counseling that met inclusion criteria. Articles included qualitative, cross-sectional and mixed-method studies, and cumulatively reported 31 challenges faced by HCPs. Among the challenges identified, the most commonly reported were personal beliefs held by the HCPs toward infant feeding in the context of HIV, contradictory messages, staff workload, directive counseling styles, and a lack of practical strategies to offer mothers, often leading to improvised counseling approaches. Counseling strategies need to be developed that are relevant, meaningful and responsive to the needs of both HCPs and mothers.

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Keywords

healthcare providers; systematic review; PMTCT; vertical transmission; exclusive breastfeeding

Introduction

The World Health Organization (WHO) recommends that HIV-positive mothers in resource-limited settings practice exclusive breastfeeding (EBF) for the first six months of their infant's life to reduce infant morbidity and mortality from all causes, including HIV (Rollins et al., 2008; Thea et al., 2004; Thior et al., 2006; WHO, 2010.). Despite the recognized benefits of EBF and the high coverage (92%) of infant feeding counseling through prevention of mother-to-child transmission (PMTCT) counseling sessions (Ladzani, Peltzer, Mlambo, & Phaweni, 2011; Leshabari, Blystad, & Moland, 2007), rates of EBF in sub-Saharan Africa (sSA) remain low (UNAIDS, 2012).

Healthcare providers (HCPs) are uniquely positioned to educate HIV-positive mothers and provide support by addressing known barriers to EBF. However, little is understood about the experiences and challenges facing HCPs when promoting EBF in PMTCT settings. Multiple challenges exist that may impact the effectiveness of counseling, including structural challenges such as consistent and standardized training to HCPs, stemming primarily from an increasing scope of HCPs' practice and practice settings (Fadnes et al., 2010). In addition, HCPs' healthcare backgrounds vary widely, and can range from lay counselors to trained nurses (Buskens & Jaffe, 2008; Chinkonde, Sundby, de Paoli, & Thorsen, 2010). In this context, exploring the experiences and ultimately challenges faced by HCPs providing infant feeding counseling in PMTCT settings may shed light to HCPs' current realities. This review highlights current research on HCPs involved in providing infant feeding counseling.

Methods

We searched PubMed, CINAHL, Scopus, PsycINFO, The Cochrane Library, Sociological Abstracts and ProQuest for published, peer-reviewed articles. Keywords related to HCP experiences in established PMTCT program sites (e.g. *breastfeeding*, *infant feeding*, *PMTCT*, *healthcare provider*, *nurse*, *counselor*, and *sub-Saharan Africa*).

Inclusion criteria included studies that were: a) conducted in sSA, b) primary research investigating HCP experiences, c) English, and d) conducted at sites providing PMTCT, including both hospitals and clinics. Given the aim of this review to illustrate experiences of HCPs in PMTCT clinic settings, articles reporting on community health workers (CHW) or peer counselors providing infant feeding counseling in informal or home settings were excluded.

Challenges faced by HCPs in delivering infant feeding counseling were extracted from each eligible article and coded, in addition to information regarding study location, sample size, study design and setting. Details providing context to each challenge were also coded.

Results

Study characteristics

Twenty-six articles met the inclusion criteria based on abstract review, 10 of which were eligible for inclusion in this review (Figure 1). All studies were published between 2000 and 2009, spanning several updates of WHO infant feeding recommendations in resource-limited settings (i.e., 2001, 2003, 2010; announced in 2009), with representation from 11 countries (Table 1). HCPs included nurses, lay counselors, and midwives. PMTCT clinic site structures varied both within and between countries, ranging from hospital-based to clinic-based. Support of PMTCT sites ranged from provincial to national administrations, as well as non-governmental organizations, international organizations and academic institutions.

Healthcare provider challenges

Thirty-one distinct challenges were elicited by HCPs when providing infant feeding counseling in PMTCT programs (Table 2).

Personal beliefs—HCPs' personal beliefs about infant feeding were the most common experience identified to impact counseling. Some HCPs felt the 2010 WHO infant feeding guidelines (WHO, 2010) that were adapted by national governments were not possible for mothers to adopt, as illustrated by this Niger HCP, "*Even if we stress breastfeeding, it is impossible to do without canned milk*" (Moussa Abba et al., 2010). Others did not see breastfeeding as a safe infant feeding option for HIV-positive women and were conflicted in following the WHO's recommendations (Manuela de Paoli, Manongi, & Klepp, 2002), leading to counseling messages based on personal experiences or beliefs over official guidelines (Chinkonde et al., 2010).

Some HCPs also seemed skeptical that EBF was a feasible option, reporting concerns about inadequate milk production (Leshabari et al., 2007), and other barriers such as employment. Furthermore, HCPs did not believe overcoming cultural norms was possible for mothers, making it unrealistic to adopt EBF as the only means of infant feeding (Buskens & Jaffe, 2008).

Contradictory messages—Typically, PMTCT counseling occurs during the antenatal period. However, given the continuum of care provided by HCPs to HIV-positive women, from pregnancy to post-partum, counseling messages may be delivered at each stage by different HCPs. Contradictory messages received by women and reflected by HCPs were marked by frustration, as heard from this Soweto HCP:

And when you asked her in the labour ward why is she taking the formula because 'you said that you will breastfeed'; her response was 'the sister said that I must formula feed', I don't [understand] because we all did the PMTCT and it goes with exclusive breastfeeding (Buskens & Jaffe, 2008).

Staff workload—HCPs mentioned burnout, stress and working on days off as challenges to performing their work to the desired extent (Leshabari et al., 2007). Some HCPs reported

seeing up to 50 pregnant women for prenatal checkups per day, not including family planning visits (Abba et al., 2010). Considering that many women learn of their HIV status during the same prenatal visit in which they are counseled on infant feeding, HCPs were also concerned that mothers receive too much information in one session (Buskens & Jaffe, 2008; Leshabari et al., 2007).

Directive counseling—Directive counseling, reported from study observation, was noted as a challenge to enhance EBF among mothers. Although some encounters between HCPs and mothers started out as open-ended and client-centered, most soon transitioned to a prescriptive mode of information delivery, with HCPs communicating through one-way rather than collaborative discussion, allowing little room to address concerns (Buskens & Jaffe, 2008) or alternative approaches (Desclaux & Alfieri, 2009).

Lack of practical strategies—HCPs experienced a lack of strategies to adequately equip mothers facing known barriers to EBF. Entwined within their sense of ineffectively supporting their patients was a sense of losing their trust, creating a complex internal conflict. HCPs perceived that mothers mistrusted the information given to them. Such mistrust was clearly heard from this Malawian HCP, *“If we change the guidelines now, mothers will lose trust in us. They will think that we advise them based on what goes on in our heads without considering the consequences”* (Chinkonde et al., 2010).

Discussion

This review aimed to compile primary research identifying experiences and ultimately challenges HCPs face in offering infant feeding counseling to HIV-positive mothers in PMTCT settings. Given the influx of financial and supportive (e.g., training, equipment, space) resources spent in sSA over the past decade (Fletcher, Ndebele, & Kelley, 2008; UNAIDS, 2010), global initiatives to eliminate childhood transmission (e.g., United Nations General Assembly Special Session on HIV/AIDS; UNGASS, 2011) and recognition that infant feeding counseling is a weak link in PMTCT programs (Chopra & Rollins, 2008; Ladzani et al., 2011), a better understanding of HCP perspectives on the current situation surrounding infant feeding counseling is needed. Our findings from this review have shed some light on current HCPs’ experiences, which may ultimately help inform future research that aims to engage HCPs in the design and implementation of focused training and interventions to effectively support HIV-positive women on infant feeding.

Infant feeding counseling by HCPs may be influenced by psychosocial factors such as HIV stigma, HCPs’ own personal experiences, and confusion stemming from changing national guidelines. As messages surrounding infant feeding in the context of HIV have continued to evolve and change considerably in a relatively short time frame, from assessing the use of and recommending formula feeding, to advising EBF, the need for appropriate, collaborative training of HCPs is warranted. Furthermore, to ensure consistent messaging throughout the continuum of care consistent messaging is essential to optimal execution of infant feeding behaviors. Consequently, when mixed messages are received and delivered, confusion may result for both HCPs and mothers, resulting in changing initial infant feeding behaviors as well as the potential loss of trust between mother and HCP. Although the confusion resulting

from changing guidelines is a reality, its contribution to HCPs' personal beliefs is unknown. Regardless, it is clear that the national guidelines to adopt EBF by all HIV-positive women fail to impact mothers when the HCPs already lack trust or belief in them.

Moreover, challenges faced by HCPs also highlight the importance of structural links in training, healthcare staffing and support systems for women such as maternity leave. As such structural barriers may also influence HCPs beliefs regarding the feasibility of EBF with the mother has to work. The reality of evolving recommendations speaks to the advancement in science, but requires updates in training as well as participation of HCPs in the development of training, interventions and counseling session curriculums to ensure full understanding of the rationale and science behind such updates and their investment to counseling messages.

Our findings have implications throughout sSA, as challenges identified were mirrored across these countries. National and international efforts to eliminate vertical transmission of HIV have centered on expanding PMTCT programs and their supply of ARVs to mother/infant pairs and infant feeding counseling. HCPs' effective delivery of these program components constitutes a major contribution to reaching zero childhood transmissions and improve the health of HIV-positive mothers. Many challenges facing HCPs are interconnected with a psychosocial foundation. For this reason, it is important to consider grounding future training and interventions in health behavioral change models, such as the Information, Motivation and Behavioral Skills (Fisher & Fisher, 1992) model of health behavior change, in an effort to address the identified challenges and move toward effective, meaningful and relevant infant feeding counseling in the context of HIV that ultimately provides mothers with the support they need.

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Figure 1.
Flow chart of the search and study selection process.

Table 1
Characteristics of studies addressing experiences of infant feeding counseling in the context of HIV among healthcare providers.

Author and Year	Journal	Location	Methodology	Sample	Data Collection	Venue in which counseling occurs
Abba et al., 2010	<i>International Breastfeeding Journal</i>	Niamey, Niger	Exploratory qualitative observations	31 Healthcare providers	2008	4 healthcare facilities providing care to pregnant and postpartum women
Buskens & Jaffe, 2008	<i>AIDS care</i>	South Africa, Namibia, Swaziland	Ethnographic Research; Interviews, FGD	7 Counselors; 10 Nurses	2003	Government run PMTCT clinics
Chinkonde et al., 2010	<i>International Breastfeeding Journal</i>	Malawi	In-depth Interviews	11 Healthcare workers; 5 Policy-makers	2008–2009	Two “internationally supported” PMTCT public health facilities
Chopra & Rollins, 2008	<i>Arch Dis Child</i>	Botswana, Kenya, Malawi, Uganda	Self-administered questionnaires, FGD, Observations, Interviews	334 health workers, 640 PMTCT counseling observations, 34 FGD with men and women	Not Specified	29 Districts randomly selected from 4 countries offering PMTCT
de Paoli et al., 2008	<i>Acta Paediatrica</i>	South Africa	Qualitative study; in-depth interviews	13 PMTCT counselors; 16 HIV positive mothers	2005	4 PMTCT provincial health clinics
de Paoli et al., 2002	<i>Reproductive Health Matters</i>	Tanzania	In-depth interviews	16 Nurses who volunteer during their spare time as PMTCT counselors; 5 HIV/AIDS counselors; 2 MDs	2000–2001	Kilimanjaro Christian Medical College hospital- site of a UNICEF-funded PMTCT site
Desclaux & Alfieri, 2009	<i>Social Science & Medicine</i>	Burkina Faso, Cambodia (excluded), Cameroon	Qualitative study; observation, interviews, FGD	Burkina Faso; 1 month observation at PMTCT clinic, 1 FGD, 7 HCP interviews, 45 HIV+ mothers Cambodia; 8 HCP, 49 HIV+ mother interviews (excluded) Cameroon; 65 HIV+ mothers, 10 HCP, 1 month observation at PMTCT clinic	2002–2007	PMTCT clinics; Médecins Sans Frontières, Kesho Bora study site, and Nationally run sites.
Fadnes et al., 2010	<i>BMC Health Services Research</i>	Uganda	Mixed-Method approach; key-informant interviews, FGD, two cross-sectional surveys	18 Health workers, 15 FGD, 727 Mothers and 235 HIV-positive mothers	2003–2005	Mbale; one regional hospital, one district hospital, 3 health centers all with PMTCT
Leshabari et al., 2007	<i>Human Resources for Health</i>	Tanzania	Qualitative study; in-depth interviews, FGD	25 Nurse-counselors	2003–2004	4 PMTCT sites
Nuwagaba-Biribonwoha et al., 2007	<i>Journal of Public Health</i>	Uganda	Interviews	15 PMTCT counselors	2003	5 PMTCT test sites

Table 2

Summary of results of studies.

Challenges facing HCP delivering Infant Feeding counseling in PMTCT settings	Abba et al., 2010 Niaméy, Niger	Buskens & Jaffe, 2008; South Africa, Namibia, Swaziland	Chinkonde et al., 2010; Malawi	Chopra & Rollins, 2008; Botswana, Kenya, Malawi, Uganda	De Paoli et al., 2008; South Africa	De Paoli et al., 2002; Tanzania	Desclaux & Alfieri, 2009 Burkina Faso, Cameroun	Fadnes et al., 2010; Uganda	Leshabari et al., 2007; Tanzania	Nuwagaba-Biribonwoha et al., 2007; Uganda	Number of articles that address each barrier
Personal beliefs in conflict with infant feeding recommendations	x	x			x	x	x	x	x	x	8
Staff workload	x	x			x			x	x	x	6
Contradictory infant feeding messages between counselors to mother		x	x			x	x	x	x	x	7
Burn-out and stress		x							x	x	3
"mothers don't listen"/two-perspectives, two voices		x			x		x				2
Private space lacking for counseling	x							x		x	3
Group Counseling	x										1
Staff shortage	x		x					x		x	4
Prioritizing other components of PMTCT over infant feeding	x										1
Influences by formula promoters	x										1
Misinformation or lack of knowledge of optimal infant feeding	x			x					x	x	4
Personal Beliefs	x										1
HIV stigma r/t infant feeding options		x		x						x	3
Incomplete messages											
Misconceptions r/t transmission risk											
Misconceptions r/t nutritional components of EBF									x		1
Perceived lack of support from governing bodies											

Challenges facing HCP delivering Infant Feeding counseling in PMTCT settings	Abba et al., 2010 Niamey, Niger	Buskens & Jaffe, 2008; South Africa, Namibia, Swaziland	Chinkonde et al., 2010; Malawi	Chopra & Rollins, 2008; Botswana, Kenya, Malawi, Uganda	De Paoli et al., 2008; South Africa	De Paoli et al., 2002; Tanzania	Desclaux & Alfieri, 2009; Burkina Faso, Cambodia, Cameroon	Fadnes et al., 2010; Uganda	Leshabari et al., 2007; Tanzania	Nuwagaba-Biribonwaha et al., 2007; Uganda	Number of articles that address each barrier
Perceived lack of training/ up to date information on guidelines			x						x	x	3
Coordination between programs		x	x								2
Directive counseling format over client-centered; insisting on a specific option		x		x	x	x	x			x	6
Perceived mistrust toward HCP by mothers after continued changing guidelines			x			x		x	x		4
"Save the baby"		x									1
Perceived interference by family members in counselor messages r/t disclosure		x				x		x		x	4
Extended support needed for follow up at home			x		x	x		x	x		5
HCP confusion r/t WHO (2010) guidelines			x	x	x			x			4
Early cessation of breastfeeding discussed by HCP				x	x						2
Lack of practical strategies to offer mothers in overcoming barriers					x	x	x	x	x		5
Too much information too soon						x			x		2
Positive feedback from mothers as motivator								x		x	2
Perceived milk insufficiency								x			1
Total factors per Article	9	10	7	5	8	8	5	12	11	12	

HCP indicates healthcare provider; PMTCT, prevention of mother-to-child transmission