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Psychosocial Adaptation among Adolescent Mothers in Western Kenya: The Role of Antenatal Care Counseling

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ABSTRACT

Purpose: This study sought to establish the influence of antenatal care counseling on psychosocial adaptation among adolescent mothers in Western Kenya and informed the development of a framework that would enhance psychosocial adaptation.

Method: This health facility-based cross-sectional study was founded on Lazarus and Folkman's psychosocial coping theory (1986) and Livneh's psychosocial adaptation to chronic illness and disability framework (2001). It was conducted in three purposively selected County referral hospitals in Western Kenya among 438 sequentially selected adolescent mothers (10-19 years) who had visited antenatal care clinics during antenatal period. Frequency distribution and chi-square analysis were performed to test associations, and correlation (according to Cohen's guideline of 1988) was included to determine the effect size of counseling provided. Moreover, Multinomial logistic regression (MLR) was run to determine the level of prediction of the variables to psychosocial adaptation (PSA).

Results: Findings indicted that counseling provided for adolescent mothers in Western Kenya did not translate to significant levels of psychosocial adaptation. Specifically, while addressing depression, anxiety child irresponsiveness, and school dropout were significantly associated with respective psychosocial adaptation ($p < 0.05$), they were weakly correlated ($r < .3$) and among technical skills employed, only responsiveness and assurance were found to be moderately correlated with self-esteem ($r > .3$, $p < 0.05$). Significant predictive variables for the outcome (PSA) from chi square analysis and MLR, occurred singly and not in combination. They included; statistically significant relationship between provision of counseling on child irresponsiveness ($x=9.26$, $df= 1$, $p=0.002$); empathy ($x= 5.69$, $df=1$, $p=0.017$); responsiveness ($x= 5.69$, $df=1$, $p = 0.005$) and self-esteem, while responsiveness ($x=17.5$, $df= 2$, $p=0.001$) and clarity ($x= 8.54$, $df= 2$, $p < 0.014$) were significantly associated with societal interaction. In addition, counselling adolescent mothers on acceptance and taking up maternal responsibilities ($x=33.12$, $df=4$, $p < 0.05$); assurance ($x=10.27$, $df=4$, $p=0.036$) and responsiveness ($x=28.64$, $df=4$, $p < 0.05$) were found to be significantly associated with love and embrace for child among adolescent mothers. Moreover, Responsiveness exhibited by healthcare workers (HCWs) significantly contributed to love and acceptance for the child (OR, 2.1; 95%CI 0.6 -6.8) and child welfare clinic utilization (OR, 1.7; 95%CI 0.3- 9.2) among adolescent mothers.

Recommendations: Adolescent mothers need individualized and targeted counseling to enhance psychosocial adaptation and which should be integrated into routine antenatal care.

Keywords: Adolescent motherhood; Psychosocial challenges (PSCs); Psychosocial adaptation (PSA), Psychosocial care; Access

INTRODUCTION

Adolescent motherhood is a major public health concern globally with approximately 13% of pregnancies being reported among adolescent girls (10-19 years) annually (UNICEF, 2022) most being unintended. In Kenya, approximately 73 births per 1000 live births representing 15% births occurred annually among girls aged 15-19 years according to Kenya demographic health survey (KDHS, 2022). Furthermore, most Western Kenya Counties bear higher burden of teenage pregnancy including Kakamega (25%), Homabay (23%), Migori (22%), Siaya (21%), Bungoma (19%), Busia (19%) Kisumu (17%), as per KDHS (2022).

Adolescent motherhood has been associated with silent yet detrimental psychosocial challenges (PSCs) which consequently affect adolescents' lives, their relationship with their young ones, peers, and society at large, especially those from low-and middle-income countries. Most commonly reported psychosocial challenges include: depression and anxiety (Mutahi, *et al.*, 2022; Laurenzi, *et al.*, 2020; Ibworo, *et al.*, 2024), lack of social support (Duby, *et al.*, 2021; Ruzibiza., 2021; Wainaina, *et al.*, 2021; Marici, *et al.*, 2023), suicidal ideation (Musyimi, *et al.*, 2020; Li, *et al.*, 2021), and academic disruption (Sobngwi-Tambekou, *et al.*, 2022; Mokoena, *et al.*, 2021). Consequently, adolescent mothers continue to contribute to statistics of numerous negative indicators including, gender-based violence (Kassa, *et al.*, 2021) negative psychosocial health indicators, poverty, early marriage (Maharaj, 2022) and continuous sexual abuse.

A combination of unintended motherhood and psychosocial challenges in adolescence stage can be overwhelming as most adolescent mothers lack intrinsic capacity to overcome dual transition, in condemning environments and missing emotional support during and after the perinatal period. As such, they continue to suffocate in these and other PSCs, hence living below their optimal health state. Whereas adolescent motherhood has received a multisectoral nature recognition, psychosocial challenges associated with it remain under-recognized yet these PSCs are often indicative of psychosocial disabilities (SmithBattle, & Freed., 2016; Xavier, *et al.*, 2018) which necessitates need for external support and resources to enhance positive psychosocial adaptation among this vulnerable group. Regrettably, past studies failed to demonstrate the need for psychosocial counseling within the antenatal care program.

Psychosocial adaptation, according to Livneh & Antonak, (2005) refers to the process through which a person with a disability moves from a state of disablement to a state of enablement and is demonstrated by the transformation from negative to positive well-being among affected individuals. Moreover, according to Felltham, Hanley, & Winter, (2017), psychosocial counseling entails listening and talking-based methods of addressing PSCs. Moreover, counseling plays a pivotal role in improving or resolving conflicts/ difficulties or discomfort among affected clients in a manner that is warm, encouraging and non-judgmental (Winter & Hanley, 2023).

Whereas past medical-related studies have reported positive impact of counseling on psychosocial health, among adolescent mothers this area has remained grey. For example, studies by Teela, *et*

al., (2023), & Remien, *et al.*, (2019) showed that there was a positive correlation between counseling targeted towards depression and stigma associated with Haemophilia and HIV/AIDS infected drug users and better adaptation respectively. Similarly, counseling has been shown to significantly reduce social isolation among people with mental health challenges (Gorenko, *et al.*, 2021 & Ma, *et al.*, 2020) and enhance mother-child relationship among violence related birth cases (Roupetz, *et al.*, 2023).

Equally, studies have shown positive outcomes when assessment, diagnosis, application of an intervention were employed at appropriate time. For example, in studies by Hughes, *et al.*, 2022 & Sender, *et al.*, 2020, the application of screening, enhanced early diagnosis of psychosocial challenges such as anxiety, depression, insomnia, and cognitive impairment among patients on cardiac rehabilitation and cancer patients respectively. Further, clients received counseling on the first contact and were reassessed on consecutive visits. These three phases (screening, counseling, reassessment) were consequently associated with mitigations of PSCs among respective clients.

Moreover, past studies have shown impressive results when technical skills of communication were employed in health-related challenges. For example, exhibiting empathy among adolescent mothers who experienced loneliness and depressive symptoms was strongly associated with marked reduction of those challenges (Calandri, *et al.*, 2021) while reassurance was associated with increased patient-security and self-confidence among patients with Lupus who experienced anxiety and stigma (Sloan, *et al.*, 2020). On the other hand, lack of adequate knowledge on challenges (Stabouli, *et al.*, 2024), unresponsiveness (Kuczynski, *et al.*, 2022) and lack of empathy (Charles, *et al.*, 2024) and absence of reassurance (Rangachari, & Woods., 2020) have been associated with aggravation of symptoms including depression, social isolation and poor quality of life among affected clients.

According to Lazarus and Folkman's psychosocial coping theory (1986), an imbalance between internal and external demands of life and resources/ skills of an individual exposes individuals to stress which come about as a result failed effort in management of those demands often viewed taxing and exceeding the individual's resources. In the case of failed intrinsic capacity, this theory recommends seeking for external support including having someone to take your back, having a group discussion, calling a friend, or opening up to a therapist as succor to life stressors. Other strategies in the Lazarus and Folkman's model include self-control, confrontation, emotional distancing among others which were beyond the scope of this study and hence were not included.

This study's conceptual framework (figure 1) was built on the fundamental framework components inherent in the process of psychosocial adaptation to chronic illness and disability (CID) as proposed by Livneh (2001) which has three overarching components including antecedents, process and outcome. Antecedents encompass causes of the illness and disability, and background variables (events and features) that are directly or indirectly linked to the challenges. Further antecedents were dichotomized into (a) triggering events- which were events that either

fully or partially caused or contributed to disability, and (b) contextual variables were variables associated with the disability and included bio-physiological status, such as age of onset, sociocultural status, and environmental conditions. Triggering event was defined as the occurrence of adolescent motherhood which formed the foundation for development of psychosocial challenges among adolescent mothers while contextual variables were adopted as sociodemographic factors including, age, residence, level of education, religion, and antenatal events which formed the background for development of psychosocial challenges among adolescent mothers.

The process stage, according to Livneh (2001) is a complex and interactive process which entailed a set of reactions which follows a particular clinical-phenomenological pattern, and which is unique to everyone. Furthermore, Livneh ascertained that these reactions were determined by interaction between psychodynamic and disability-triggered phases of adaptation and a host of intrapersonal (biopsychological), interpersonal (sociocultural), and extra-personal (environmental) variables which individuals experienced. In recognition of limited inherent/ intrinsic capacities to overcome challenges associated with illness and disability, Livneh proposed the need for an external appraisal to enhance adaptation capacity. In the current study the process had two wings. The first wing entailed responses/ reactions to unintended motherhood referred to as psychosocial challenges (PSCs) including depression, anxiety, social isolation, child irresponsiveness and school dropout. The second wing, entailed external assistance as suggested by Lazarus & Folkman (1986) and entailed application of counseling and technical skills of communication as described by Miller, & Stephen (2012) from health care workers, which adolescent mothers who experienced PSCs received during antenatal period from healthcare workers (HCWs)

Furthermore, the outcome stage in Livneh's framework, entail features of adaptation including, reorganization, reintegration, and reorientation. More specifically, it includes early cognitive reconciliation of the illness/disability, its impact or its permanent nature; acceptance of oneself as a person living with permanent disability hence having a sense of self-concept, renewed search for life's new meaning and values; active pursuit of personal, social, and vocational goals as well as successfully negotiating life's' obstacles in pursuit of these goals. In the current study, outcome implied psychosocial adaptation following application of counseling and entailed self-esteem, social inclusion (societal and peer interaction), child responsiveness demonstrated by the adolescent mothers as love and embrace for the child, willingness to freely breast feed, and take up maternal responsibilities such as utilization of child welfare clinic (CWC) services, and school continuation. These were termed as positive psychosocial adaptation among adolescent mothers.

In conjunction, this study further incorporated motivational interviewing form of counselling by Miller & Rollnick (2012) to assess process of counselling as conducted by HCWs during antenatal care period. According to Miller, & Rollnick, counseling entails listening, guiding and use of technical skills, where the provider purposely listens carefully, and seeks to understand the other person while respectfully refraining temporally from inserting their own ideas. As a guide, the

provider carefully listens and offers expertise where needed. Skills involved include responsiveness, comprehension, empathy, listening and observing among others, while guiding skills include; encouraging, clarity, inspiring and motivation among others. In addition, MI goes through four fundamental processes including, establishing working relationship and contracting, setting goals (focusing), evoking (actual counseling through “change talk”), and planning. In MI, the role of the HCW/ counsellor is to offer support in consolidating person’s commitment to change and develop a plan based on their own insights and expertise.

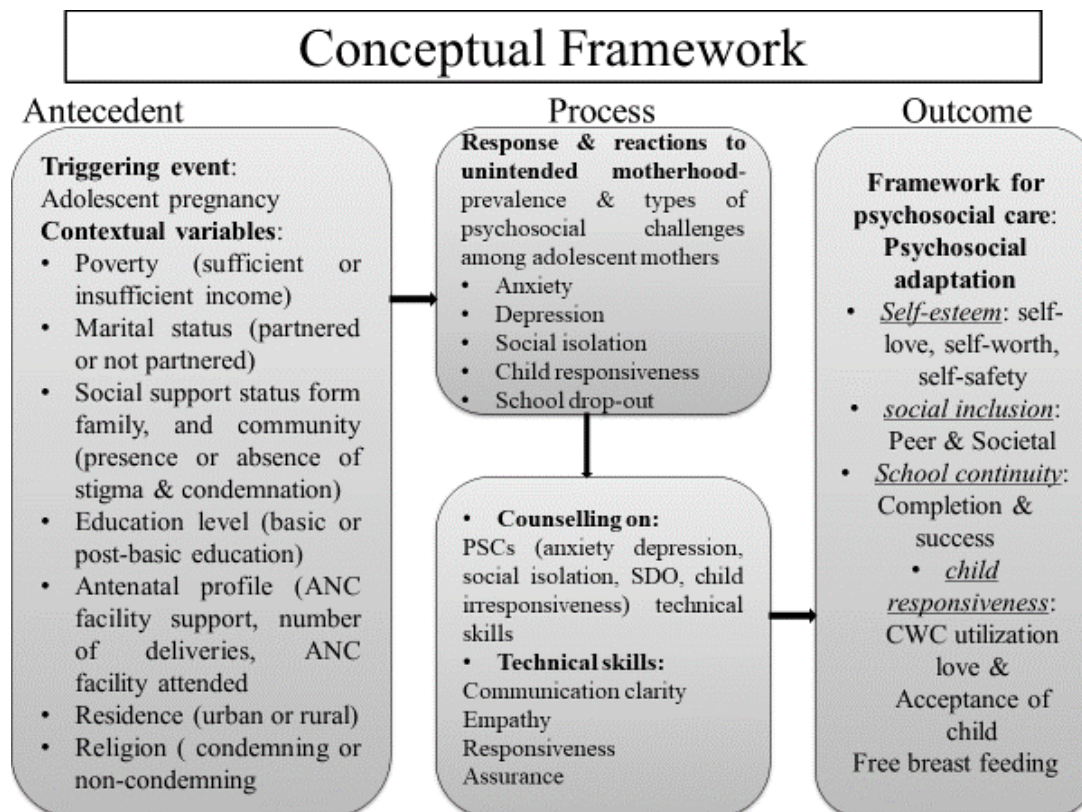


Figure 1: *Emerging conceptual framework (modified from Livneh, (2001))*

The absence of a guideline for psychosocial care in the current antenatal care program implies lack of comprehensive care which hinders achievement of the four dimensions of desired health as defined by WHO, namely; physical, mental, social, and spiritual health. Consequently, integration of psychosocial care component within antenatal care encompassing screening, counselling, re-assessment and linkages would act as good entry point for mitigation of PSCs and promotion of optimal health among psychosocially challenged mothers as previous studies have reported that pregnant mothers utilize antenatal care or general health facilities at least once during antenatal period (Ibwo, A. & Ibwo, V., 2020); Mutai & Otieno 2021); Ayodo, *et al.*, 2021); & KDHS, 2022). Its absence on the other hand, could be blamed for the missed opportunity for feasible

diagnosis and intervention strategies as well as half hazard application of counselling among primary healthcare givers.

In conclusion, whereas antenatal care has had a number of reviews which has led to incorporation of counselling and education component including WHO (2016) ANC model, and whereas adolescent mothers continue to experience enormous psychosocial challenges with its detrimental effects, little is known about how health care system has facilitated psychosocial adaptation among the affected victims, as well as effective implementation pathways which is a misstep. This study therefore explored association between counseling provided during routine antenatal care and psychosocial adaptation among adolescent mothers in Western Kenya.

METHODOLOGY

Study design: This study employed a cross-sectional descriptive design.

Sampling and sampling techniques: A total of 438 adolescent mothers (10-19) determined by Yamane Taro formula, were sequentially selected for inclusion initially. However, only two hundred and twenty-six adolescent mothers who had received some form of psychosocial counselling from various antenatal care facilities proceeded for further analysis. Three Counties (Kakamega, Siaya, Kisumu) were selected through lottery method followed by three county referral health facilities which were purposively selected as they provided comprehensive maternal and child health care services.

Data management: Data was collected electronically using Kobo-collect (version 2022. 4.4) tool between April and October 2023 and included, sociodemographic data, access to counseling and association of the counseling with psychosocial adaptation on a one-on one basis. In particular, this study sought to assess changes in level of self-esteem, academic continuity, child responsiveness and social inclusion as outcomes of counseling. Self-esteem was measured using a Rosenberg Self-Esteem (RSE) Scale while the rest were measured using relevant questions.

Frequency tables were used to describe number of observations with their respective percentages. Furthermore, respective *chi-square* analysis was performed to determine associations of access to counselling with psychosocial adaptation and those variables that were found with $p < 0.05$ were considered to have been statistically significant. In addition, using Cohen's (1988) cut-off points (r), a correlation below .3 was considered to be weak and ineffective, .5 was considered medium/moderate and .8 was considered to have had large/ strong effect. Furthermore, predictive value of counseling on psychosocial adaptation (outcome) was measured using chi-square multinomial logistic regression (MLR) analysis. In this case, predictor variables included HCWs, counseling on PSCs and technical skills of communication applied during antenatal care while the outcome included variables of psychosocial adaptation. Specifically, outcome variables were specified as the reference category and regression coefficients were estimated for each predictor variable. From the output, odds ratio (*OR*) was determined at 95% confidence interval (*CI*) and *p*-value less

than 0.05 were considered to be significant. The significant findings determined the predictor value of counseling variables in enhancing psychosocial adaptation.

Ethical considerations: All principles governing human respondents were observed. Ethical approval was obtained from Jaramogi Oginga Odinga University of Science and Technology (JOOUST) ethical review board, National Commission for Science, Technology and Innovation (NACOSTI) and the participating health facility leadership and ANC in-charges, consent and assents were obtained from participants and confidentiality assured to participants.

Results

Sociodemographic Characteristics

The study population consisting of 438 adolescent mothers were categorized into precocious adolescents (10-14 years) and late adolescent years (15-19 years). Precocious adolescents were 53 (12.1%), while those aged 15-19 years were 385 (87.9%). Whereas 171 (39%) of respondents received financial support from their parents during pregnancy, 115 (26.3%) were supported by their partners, 60 (13.7%) were supported by guardians, and 84 (19.2%) depended on self. Moreover, only 226 (51.6%) of respondents received some form of psychosocial counseling. The other sociodemographic characteristics were as shown in table 1.

Table 1 Sociodemographic characteristics of adolescent mothers

Variable		Frequency (438)	Percentage
Age	10-14	53	12.1
	15-19	385	87.9
Marital status	Single	300	68.5
	Married	117	26.7
	Divorced	12	2.7
	Other	09	2.1
Residence	Formal	118	26.9
	Informal	194	44.3
	Village (rural home)	126	28.8
Religion	Christian	271	61.9
	Muslim	53	12.1
	Traditional African	103	23.5
	Other	11	2.5
PSA counseling	Yes	226	51.6
	No	212	48.4

Frequency of Psychosocial Adaptation Based on Psychosocial Challenge Addressed

In overall, 226 (51.6%) adolescent mothers reported to have received some form of counseling on psychosocial challenges (PSCs) namely, depression, anxiety, social isolation, child irresponsiveness and school-related matters. However, most showed sub-optimal levels of psychosocial adaptation as shown in table 2. For example, among 146 (64.6%) respondents who were counselled on depression, only 89 (39.4%) were found to have normal self-esteem using

Rosenberg self-esteem scale. Among 150 (66.3%) and 91 (40.3%) who had social isolation addressed, 40 (17.7%) and 34 (15.0%) reported normal societal and peer interaction respectively. Additionally, among 90 (39.8%) of respondents who had received counseling on school status, only 64 (28.3%) resumed studies at the same level.

It is worth noting that, majority (n=183, 81.0%) of adolescent mothers reported to have received counseling which addressed child irresponsiveness. Among them, 109 (48.2%) loved and embraced their young ones, 112 (50.0%) freely breast fed their babies and 141 (62.4%) freely utilized child welfare clinic services for their young ones. It is equally worth noting that the frequency of those who had contrary outcome despite having received counselling formed the majority among the respondents as shown in table 2. In summary, 57 (25.2%) had low self-esteem, 110 (48.6%) never or had difficulty interacting with their young ones, and 74 (32.8%) had difficulty embracing their young ones despite receiving related counselling.

Table 2 Descriptive Summary of the Outcome of Counseling on Psychosocial Challenges

PSA outcome		PSC addressed			
Levels		Depression			
		Yes	No	Don't know	Total
Self-esteem	Low	57(25.2%)	58(25.7%)	3(1.3%)	118(52.2%)
	Normal	89(39.4%)	18(8.0%)	1(0.4%)	108(47.8%)
	<i>Total</i>	146(64.6%)	76(33.6%)	4(1.8%)	226(100%)
Societal interaction	Social isolation				
	Never interact	24(10.6%)	24(10.6%)	0(0%)	48(21.2%)
	Difficulty interacting	86(38.0%)	37(16.3%)	4(1.8%)	127(56.1%)
	Normal interaction	40(17.7%)	11(4.9%)	0(0%)	51(22.6%)
<i>Total</i>	150(66.3%)	72(31.9%)	4(1.8%)	226	
School / peer interaction	never interact	6(2.7)	38(16.8%)	1(0.4%)	45(19.9%)
	Difficulty interacting	51(22.6%)	74(32.7%)	3(1.3%)	128(56.6%)
	Normal interaction	34(15.0%)	19(8.4%)	0(0%)	53(23.4%)
	<i>Total</i>	91(40.3%)	131(57.9%)	4(1.8%)	226
Love & acceptance	Child irresponsiveness				
	Love & embrace baby	109(48.2%)	5(2.2%)	0(0%)	114(50.4%)
	Difficulty accepting baby	38(16.8%)	10(4.4%)	1(0.4%)	49(21.6%)
	Forced to accept baby	23(10.2%)	22(9.7%)	0(0%)	45(19.9%)
	Prefer giving up for adoption	4(1.8%)	2(0.8%)	0(0%)	6(2.6%)
	Prefer giving father/ family	9(4.0%)	2(0.8%)	1(0.4%)	12(5.3%)
<i>Total</i>	183(81.0%)	41(18.1%)	2(0.8%)	226(100%)	
Breast feeding	Freely breast feed	112(50.0%)	4(1.8%)	0(0%)	116(51.3%)
	Embarrassed to breast feed	57(25.2%)	23(10.2%)	2(0.8%)	82(36.2%)
	Forced to breast feed	14(6.2%)	14(6.2%)	0(0%)	28(12.4%)
	<i>Total</i>	183(81%)	41(18.1%)	2(0.8%)	226(100%)
CWC utilization	Yes (freely utilize CWC)	141(62.4%)	14(6.2%)	0(0%)	155(68.6%)
	No (do not utilize CWC)	3(1.3%)	2(0.8%)	0(0%)	5(2.2%)
	Forced to utilize CWC	39(17.3%)	25(11.0%)	2(0.8%)	66(29.2%)
	<i>Total</i>	183(81.0%)	41(18.1%)	2(0.8%)	226(100%)
Academic continuation	School dropout				
	Resumed at the same level	64(28.3%)	60(26.6%)	2(0.8%)	126(55.7%)
	Took up technical course	5(2.2%)	13(5.7%)	0(0%)	18(7.9%)
	Dropped out altogether	21(9.3%)	59(26.1%)	2(0.8%)	82(36.2%)
<i>Total</i>	90(39.8%)	132(58.4%)	4(1.8%)	226(100%)	

Frequency of Psychosocial Adaptation Based on Technical Skill Applied

The technical skills that were employed and their corresponding psychosocial adaptation frequencies are shown in Table 3 (appendix 1). In summary, approximately half of the respondents had normal self-esteem when healthcare workers applied the following technical skills. Namely clarity (n=98, 55.7%), empathy (n=83, 47.7%), assurance (n=90, 51.7%) and responsiveness (n=94, 54.3%). Similarly, approximately half of respondents demonstrated aspects of child responsiveness when the technical skills were applied during antenatal care.

On the other hand, only a quarter of respondents had normal societal and peer interaction when aspects of technical skills were applied. For example, when HCWs applied clarity, 45 (24.7%) of adolescent mothers experienced normal societal interaction. Similarly, when they expressed empathy, only 38 (21.1%) had normal societal interaction and when HCWs exhibited assurance, 43 (23.4%) of adolescent mothers had normal societal interaction. Moreover, when HCWs exhibited clarity, 98(54.1%), resumed studies at the same level after a break brought about by pregnancy-related school dropout and only 78(43.8% resumed studies at the same level as a result of HCWs exhibiting responsive communication.

In table 4 findings showed that while addressing depression and anxiety, child irresponsiveness and school dropout matters were significantly associated with self-esteem, love for the child, and CWC utilization respectively ($p < 0.05$), they were found to be weakly correlated ($r < .3$). It is worth noting that association between addressing social isolation and peer interaction (outcome) was found not to be statistically significant ($p = 0.120$) yet moderately correlated. This meant that the effect of clarity was not strong enough for this study's sample size to determine it to be statistically different from zero ($r = .537$, $p = 0.120$).

On the other hand, addressing social isolation, and child irresponsiveness were seemingly found not have any impact on societal interaction, and breast feeding as shown by $r = .124$, $p = 0.064$ and $r = -.002$, $p = 0.982$ respectively.

Table 4 Association Between Counselling on Psychosocial Challenges (PSCs) and PSA

PSC addressed	PSA outcome	Frequency	<i>r</i>	Chi	Df	P
Depression	Self-esteem	146(67.3%)	.311	22.353	2	0.0001
Social isolation	Societal interaction	150(66.3%)	.124	10.450	4	0.064
	Peer interaction	91(40.3%)	.537	9.178	2	0.120
Child irresponsiveness	Love for child	183(81.0%)	.246	47.873	8	0.0001
	Breast feeding	183(81%)	-.002	44.643	4	0.982
	CWC utilization	183(81.0%)	.354	29.193	4	0.005
School dropout	School continuation	90(39.8%)	.136	13.657	4	0.052

In table 5 statistically significant association were found between four technical skills applied (clarity, assurance, empathy and responsiveness) and self-esteem, love for the child and child welfare utilization by the adolescent mothers ($p < 0.05$). However, only responsiveness ($r = .510$) and assurance ($r = .416$) were found to be moderately correlated with self-esteem. On the other hand, technical skills (empathy, clarity, assurance, responsiveness) exhibited by healthcare workers (HCWs) had neither statistical significance nor significant correlation with the other variables of psychosocial adaptation (societal/ peer interaction, breast feeding and school continuation) among adolescent mothers ($p > 0.05$ and $r < .3$). It is worth noting that association between clarity and breast feeding was found not to be statistically significant yet strongly correlated. This meant that the effect of clarity was not strong enough for this study's sample size to determine it to be statistically different from zero ($r = .70$, $p = 0.347$) for adolescent mothers to breast feed their young ones.

Table 5 Association Between Technical Skills Applied and Psychosocial Adaptation

Counselling element	PSA outcome	Frequency	r	chi	Df	P
Clarity	Self-esteem	152(86.4%)	.247	10.736	1	0.001
	Societal interaction	158(86.8%)	.244	12.219	2	0.162
	Peer interaction	110(61.1%)	.086	10.452	2	0.249
	Love for child	157(86.7%)	.118	12.678	4	0.115
	Breast feeding	156(86.7%)	.70	8.529	2	0.347
	CWC utilization	157(86.7%)	.250	11.957	2	0.003
	School continuation	157(86.7%)	.048	0.692	2	0.525
Empathy	Self-esteem	113(64.9%)	.365	23.138	1	<0.001
	Societal interaction	118(65.6%)	.067	4.090	2	0.372
	Peer interaction	129(72.1%)	.022	13.938	2	0.767
	Love for child	118(65.6%)	.169	15.368	4	0.024
	Breast feeding	117(65.7%)	.144	12.141	2	0.055
	CWC utilization	118(65.9%)	.257	16.652	2	0.001
	School continuation	118(65.9%)	-.048	0.330	2	0.525
Assurance	Self-esteem	125(71.8%)	.416	28.277	1	0.001
	Societal interaction	131(72.8%)	.079	10.426	2	0.290
	Peer interaction	131(72.8%)	.042	9.178	2	0.580
	Love for child	130(72.6%)	.331	31.458	4	0.001
	Breast feeding	129(72.5%)	.083	27.948	2	0.272
	CWC utilization	130(72.6%)	.371	26.097	2	0.001
	School continuation	130(72.6%)	.87	1.834	2	0.247
Responsiveness	Self-esteem	124(71.7%)	.510	44.955	1	0.001
	Societal interaction	129(72.1%)	.084	10.425	2	0.262
	Peer interaction	129(72.1%)	-.038	13.938	2	0.613
	Love for child	128(71.9%)	.237	31.290	4	0.001
	Breast feeding	127(71.8%)	.068	36.570	2	0.368
	CWC utilization	83(65.9%)	.351	26.092	2	0.001
	School continuation	128(71.9%)	.130	4.150	2	0.085

Predictors of Psychosocial adaptation

The results of chi-square analysis and Multinomial logistic regression (MLR) which were used to test the association between profiles of counselling and psychosocial adaptation given in table 6 and 7, were considered on the basis of model fit information in the current antenatal care practice. The significant findings showed the prediction of the counseling variables in enhancing psychosocial adaptation.

In table 6, findings showed that there was statistically significant relationship between providing counselling on child acceptance and taking up maternal responsibilities ($\chi=9.26$, $df=1$, $p=0.002$); empathy ($\chi=5.69$, $df=1$, $p=0.017$); responsiveness ($\chi=5.69$, $df=1$, $p=0.005$) with self-esteem. Similarly, responsiveness ($\chi=17.5$, $df=2$, $p=0.001$) and clarity ($\chi=8.54$, $df=2$, $p<0.014$) were found to be significantly associated with societal interaction.

Moreover, providing counseling on acceptance and taking up maternal responsibilities ($\chi=33.12$, $df=4$, $p<0.05$); exhibiting assurance ($\chi=10.27$, $df=4$, $p=0.036$) and responsiveness ($\chi=28.64$, $df=4$, $p<0.05$) were found to be significantly associated with adolescent mothers expressing love and acceptance towards their newborns.

Furthermore, health care worker ($\chi=12.56$, $df=4$, $p=0.014$), counseling on acceptance and taking up maternal responsibilities ($\chi=15.813$, $df=2$, $p=0.001$); empathy ($\chi=11.19$, $df=2$, $p=0.004$) and responsiveness exhibited by HCWs ($\chi=23.43$, $df=2$, $p=0.003$) were significantly associated with child welfare clinic (CWC) utilization among respondents. Moreover, counseling on child acceptance and taking up maternal responsibilities ($\chi=32.23$, $df=2$, $p<0.05$) and responsiveness ($\chi=37.29$, $df=2$, $p<0.05$) were significantly associated with adolescent mothers freely breast feeding their young ones.

Odds ratio (OR) in logistic regression was used to compare the relative odds of occurrence of the outcome of interest (e.g. Love & Acceptance of the child) given the exposure to the variable of interest (e.g. responsiveness). When OR was = to 1 it was an indication that the exposure had no impact on the outcome while when OR was > than 1 then there was an increased occurrence of the event given the exposure, and when OR was < 1 then there was a decreased occurrence of the event.

From the results, the OR of 2.166 implied that an adolescent mother exposed to a HCW exhibiting responsiveness, was 2.166 times more likely to love and accept the baby than those who were not exposed to HCWs exhibiting responsiveness and when she was exposed to a HCW, she was 1.734 more likely to utilize child welfare clinic (CWC) for her baby as shown in table 7.

In summary, significant findings of the outcome from chi square analysis and MLR, occurred singly and in isolation and not in combination. These separate variables were put together to develop a framework for psychosocial care.

Table 6 Association between Counseling and Psychosocial Adaptation Variables

PSC care	Significant psychosocial adaptation variables																	
	SE			SI			PI			L&A			BF			CWC		
	x	d	p	X	D	p	x	D	p	x	d	p	x	d	P	x	d	p
Provider	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	4	0.01
Counselling on A &MR	9.26	1	0.00	-	-	-	7.36	2	0.02	33.1	4	<0.0	32.2	2	<0.0	15.8	2	0.00
Empathy	5.69	1	0.01	-	-	-	-	-	-	-	-	-	-	-	-	11.1	2	0.00
Responsive ness	5.69	1	0.00	17.5	2	0.00	17.1	2	<0.0	28.6	4	<0.0	37.2	2	<0.0	23.4	2	0.00
Assurance	-	-	-	-	-	-	-	-	-	10.2	4	0.03	-	-	-	-	-	-
Clarity	-	-	-	8.54	2	0.01	-	-	-	-	-	-	-	-	-	-	-	-

Table 7 Predictors of Psychosocial adaptation

PSC care	Odd ratio at 95% Confidence interval																	
	SE			SI			PI			L&A			BF			CWC utilization		
	OR	LB	UB	OR	LB	UB	OR	LB	UB	OR	LB	UB	OR	LB	UB	OR	LB	UB
Provider	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.73	.32	9.23
Counselling on A &MR	.22	.08	.58	-	-	-	.16	.03	.696	.373	.12	1.07	.08	.02	.28	.153	.06	.391
Empathy	.35	.15	.82	-	-	-	-	-	-	-	-	-	-	-	.478	.19	1.18	
Responsive ness	.11	.04	.29	.10	.02	.377	.60	.23	1.54	2.16	.68	6.87	.12	.05	.30	.273	.11	.680
Assurance	-	-	-	-	-	-	-	-	-	.913	.28	2.88	-	-	-	-	-	-
Clarity	-	-	-	.70	.18	2.64	-	-	-	-	-	-	-	-	-	-	-	-

Key:

SE: Self-esteem

L&A: Love and acceptance for baby

SI: Societal interaction

BF: Breast feeding

CWC: Child welfare clinic

PI: Peer interaction

MR: Maternal responsibilities OR: Odds ratio

DISCUSSION**4.0 Introduction**

This study outlined association of counselling with psychosocial adaptation as currently provided during antenatal care in Western Kenya. Overall, findings showed that counselling received was unintentional and inadequate. Healthcare workers lacked appropriate knowledge on management of psychosocial challenges and the technical skills of communication.

Counseling received by adolescent mothers, as observed in this study, was specifically characterized by stereotyped communication, ambiguity, non-empathetic, non-responsive communication and negative attitude towards adolescent mothers. At system- and service-delivery level, the standard antenatal care program did not include screening and counselling component

for psychosocial care, and more so, lacked allocation for psychosocial care in primary care setting both in human resource and infrastructure. These findings reflect inattention and inadequacy in the management of the psychosocial health of adolescent mothers. Contrarily, past studies have reported positive psychosocial outcome in the presence of supportive policies and guidelines (Jain, *et al.*, 2021), tailored services/care (Sallay, *et al.*, 2023), and adequate training for health care workers (Kohrt, *et al.*, 2020). The absence of psychosocial health supportive policies and guidelines as well as services tailored for the needs of the adolescent mothers in the current study therefore indicate that the psychosocial needs among adolescent mothers remain unaddressed.

At service-delivery level, the effect of counseling which addressed all psychosocial challenges was found not to be adequate in enhancing psychosocial adaptation among adolescent mothers ($r < .3$). Specifically, counselling addressed depression and anxiety, child irresponsiveness and school matters which did not translate to self-esteem, child responsiveness and school continuation respectively. On the contrary, previous studies by Kazal, *et al.*, (2021) and Naderpour, *et al.*, (2024) showed that counseling reduced anxiety and depression remarkably. Variations between the current study and these two studies could be associated to intentional counseling which was provided to respondents, period of counseling administration and screening tools employed.

Similarly, a previous study by Mabetha, *et al.*, (2022), showed that a combination of preconception and perinatal counseling increased the probability to love and embrace children among women aged 18-28 years. However, this study's participants purposely desired to have children unlike in the current study. Furthermore, previous studies have shown that counseling increased likelihood of retention of pregnancy using prenatal coping inventory tool (Bakhtari-Aghdam, *et al.*, 2023), enhanced positive attitude towards pregnancy and motherhood using health practices questionnaire (HPQ-II) and attitude towards motherhood and pregnancy questionnaire (Rezaie, *et al.*, 2021) and promoted maternal-fetal attachment using maternal-fetal attachment scale (Ekrami, *et al.*, 2020) among women with unintended pregnancies. Variations in these studies and the current study could be attributed to screening tools employed as well as the intentional nature of counseling.

Furthermore, in the current study counseling had no significant effect on school continuation. Academic disruptions among adolescent mothers have been associated with higher poverty (Jochim, *et al.*, 2021), lack of support from parents and school administration (Laurenzi, *et al.*, 2020) and failure to implement school re-entry policies (Thwala, *et al.*, 2022). Contrarily, studies in Nakuru county, Kenya (Asino, & Nyanga'ra., 2023) and in Uasin Gishu, Kenya (Koech., Simiyu & Ndimo, 2019) reported significant association between counselling and academic continuation among adolescent mothers. The variation however, may be explained by study setup. While the current study was undertaken in health care facilities, the latter were carried out in school environments.

Still on service-level, the current study showed that most of the technical skills which were exhibited by health care workers (HCWs) had either no or little impact on psychosocial adaptation

among adolescent mothers in Western Kenya. Specifically, whereas HCWs exhibited some degree of empathy, and clarity, their roles were found to have no significant effect on self-esteem, but responsiveness and assurance had moderate significant effect on self-esteem. However, all their technical skills were found to have no significant effect on other psychosocial adaptation elements (social interactions, child responsiveness and school continuation similar to other previous studies by Tumlinson, *et al.*, (2022) and Ouedraogo, *et al.*, (2023). Negative behaviors among healthcare workers such as rudeness, lack of empathy and respect towards patients, has been reported to negatively affect patient outcomes (Guo, *et al.*, 2022), such as poor compliance (Hicks, *et al.*, 2022) and to result to negative psychosocial health outcomes (Wiig, & O'Hara., 2021).

Contrary to findings of the current study, previous studies have shown that appropriate application of technical skills significantly enhanced psychosocial health among clients. For instance, a study in Mexico by Chamorro, *et al.*, (2019) associated empathy and responsiveness exhibited by community health nurses with family reintegration, better peer interaction and resumption of studies among adolescent mothers. Principle respondents in this study were however care providers hence could have been subject to information bias. Furthermore, comprehension and responsiveness of the subject matter as exhibited by healthcare workers have been shown to contribute significantly to enhanced positive mental health, coping mechanisms to unintended motherhood and academic continuation among victims of unintended motherhood (Rezaie, *et al.* 2021; Njuki, 2019).

Moreover, irrespective of the cadre of the HCWs (nurses, clinicians, gynaecologists), counseling provided had no impact on positive psychosocial adaptation among adolescent mothers in Western Kenya. Insignificant outcome on psychosocial adaptation in this finding could most likely be linked to dents at service level-dents and health system delivery dents. In line with past literature, service-level dents as well as system-level delivery dents have been listed to include; incompetence and poor literacy on subject matter (Hannawa, *et al.*, 2021; Palumbo, *et al.*, 2021), poor communication skills (Kwame, & Petrucka., 2021), increased workload (Moudatsou, *et al.*, 2020), inadequate human resource (Ibworu, Guya, & Omondi., 2020), absence of a guideline (Li, *et al.*, 2020; Esmaeilzadeh, *et al.*, 2020) and lack of capacity/ training (Li, *et al.*, 2020).

Predictors of Psychosocial Adaptation

This study found that the current antenatal care program lacked an informed and structured component on psychosocial care. However, healthcare workers provided some form of counseling whose elements contributed singly to psychosocial adaptation among adolescent mothers (on the basis of model fit information) and were therefore included in the development of the framework for psychosocial care. Specifically, healthcare workers (HCWs), counseling on love and child acceptance, empathy, assurance, clarity, and responsiveness significantly contributed to self-esteem, social interaction, and child responsiveness albeit separately.

Frameworks which improve health outcomes are not unachievable. Previous studies have shown that evidence-based and consistency in the application of guidelines is associated with better health outcomes, improved patient satisfaction, and reduced cost of care in clinical practice (Teisberg, *et al.*, 2020; Mahmoudi, *et al.*, 2023). Furthermore, previous studies have reported incorporation of frameworks which successfully aligned services (Raby, *et al.*, 2008), identified distinct constructs for service delivery (Sheridan Rains, *et al.*, 2021) and enhanced capacity of care providers (Toyama, *et al.*, 2017) in other medical-related cases. However, none focused on psychosocial care among adolescent mothers. As such, incorporating psychosocial care within the current antenatal care program would enhance psychosocial adaptation among adolescent mothers, enhance capacity of healthcare workers on provision of overall health care, and in overall, reduce health costs as all dimensions of maternal-reproductive health would be addressed simultaneously. Moreover, it would be a step towards achieving maternal-reproductive health which according to World Health Organization (WHO), is a state of complete physical, mental and social wellbeing and not merely the absence of disease during pregnancy, childbirth and postnatal period.

Conclusion: This study findings revealed that the current counseling strategy and package as applied during antenatal care was inadequate in addressing psychosocial challenges and inadequate in enhancing adaptation among adolescent mothers. The findings of this study have informed development of a framework to improve antenatal care counseling and enhance psychosocial adaptation.

Recommendation

Adolescent mothers need individualized and targeted counseling to enhance their psychosocial adaptation. It is therefore vital to develop a framework for psychosocial care to act as a tool kit to guide the healthcare worker in screening and provision of services to address these challenges. Likewise, future research should focus on integration of psychosocial care with the standard antenatal care.

References

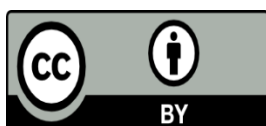
- Asino, F., Mukadi, E., & Nyanga'ra, N. (2023). Counseling on Stigma and Its Influence on Academic Progression and Psychological Wellbeing of Adolescent Student Mothers in Public Secondary Schools in Nakuru County, Kenya. *Journal of Humanities and Social Sciences ISSN (2708-504X)*, 3(1), 74-86.
- Calandri, E., Graziano, F., Cattelino, E., & Testa, S. (2021). Depressive symptoms and loneliness in early adolescence: the role of empathy and emotional self-efficacy. *The Journal of Early Adolescence*, 41(3), 369-393
- Charles, J. C., Sivayokan, B., & Kumanan, T. (2024). Decline in empathy among healthcare workers; where have all the flowers gone?
- Duby, Z., McClinton Appollis, T., Jonas, K., Maruping, K., Dietrich, J., LoVette, A., ... & Mathews, C. (2021). "As a young pregnant girl... the challenges you face": exploring the intersection between mental health and sexual and reproductive health amongst adolescent girls and young women in South Africa. *AIDS and Behavior*, 25, 344-353.
- Ehteshami-Afshar, S., & Merchant, N. (2022). The underappreciated role of documentation in improving COPD care. *Cleveland Clinic Journal of Medicine*, 89(5), 249-251.
- Feltham, C., Hanley, T., & Winter, L. A. (Eds.). (2017). *The SAGE handbook of counselling and psychotherapy*. Sage
- Gorenko, J. A., Moran, C., Flynn, M., Dobson, K., & Konnert, C. (2021). Social isolation and psychological distress among older adults related to COVID-19: a narrative review of remotely-delivered interventions and recommendations. *Journal of Applied Gerontology*, 40(1), 3-13.
- Govender, D., Naidoo, S., & Taylor, M. (2020). Antenatal and postpartum depression: Prevalence and associated risk factors among adolescents' in KwaZulu-Natal, South Africa. *Depression research and treatment*, 2020(1), 5364521.
- Hall, S., Reed, M., & Covers, T. C. (2024). 25 THERAPEUTIC ENGAGEMENT FOR MENTAL HEALTH CARE. *Essentials of Mental Health Nursing*.
- Hughes, J. W., Serber, E. R., & Kuhn, T. (2022). Psychosocial management in cardiac rehabilitation: current practices, recommendations, and opportunities. *Progress in Cardiovascular Diseases*, 73, 76-83
- Ibworu, A. A., & Ibworu, V. (2020). Factors influencing compliance to Focused Antenatal Care in Kisumu County Referral Hospital, Kenya. *Journal of Nursing and Health sciences*, 9(4), 38-43
- Isah, E. E., & Byström, K. (2020). The mediating role of documents: information sharing through medical records in healthcare. *Journal of Documentation*, 76(6), 1171-1191.
- Jain, A., Hassard, J., Leka, S., Di Tecco, C., & Iavicoli, S. (2021). The role of occupational health services in psychosocial risk management and the promotion of mental health and well-being at work. *International journal of environmental research and public health*, 18(7), 3632.

- Jochim, J., Cluver, L. D., & Meinck, F. (2021). Learner pregnancy in South Africa's Eastern Cape: The Factors affecting adolescent girls' school withdrawal during pregnancy. *International Journal of Educational Development*, 87, 102484.
- Kassa, G. M., Arowojolu, A. O., Odukogbe, A. T. A., & Yalew, A. W. (2021). Adverse maternal outcomes of adolescent pregnancy in Northwest Ethiopia: A prospective cohort study. *Plos one*, 16(9), e0257485.
- Kazal, H. R., Flanagan, P. J., Mello, M. J., Monteiro, K., & Goldman, R. E. (2021). Birth stories, support, and perinatal emotional health among minority adolescent mothers: A mixed methods study. *Journal of Pediatric and adolescent gynecology*, 34(6), 847-856
- Kenga, M. (2019). Using Community Health Volunteers in Child's Growth Monitoring and Promotion: A Cross-Sectional Study of Facilitators and Barriers in Kitui County, Kenya. *EC Nutrition*, 14, 600-613
- KNBS. Kenya Demographic and Health Survey. 2022. Available from <https://www.knbs.or.ke/reports/kdhs>
- Kohrt, B. A., Turner, E. L., Rai, S., Bhardwaj, A., Sikkema, K. J., Adekun, A., ... & Jordans, M. J. (2020). Reducing mental illness stigma in healthcare settings: proof of concept for a social contact intervention to address what matters most for primary care providers. *Social Science & Medicine*, 250, 112852.
- Kuczynski, A. M., Halvorson, M. A., Slater, L. R., & Kanter, J. W. (2022). The effect of social interaction quantity and quality on depressed mood and loneliness: A daily diary study. *Journal of Social and Personal Relationships*, 39(3), 734-756.
- Laurenzi, C. A., Gordon, S., Abrahams, N., Du Toit, S., Bradshaw, M., Brand, A., ... & Skeen, S. (2020). Psychosocial interventions targeting mental health in pregnant adolescents and adolescent parents: a systematic review. *Reproductive health*, 17, 1-15.
- Li, J., Imam, S. Z., Jing, Z., Wang, Y., & Zhou, C. (2021). Suicide attempt and its associated factors amongst women who were pregnant as adolescents in Bangladesh: a cross-sectional study. *Reproductive health*, 18, 1-9.
- Livneh, H. (2001). Psychosocial adaptation to chronic illness and disability: A conceptual framework. *Rehabilitation counseling bulletin*, 44(3), 151-160.
- Livneh, H., & Antonak, R. F. (2005). Psychosocial adaptation to chronic illness and disability: A primer for counselors. *Journal of Counseling & Development*, 83(1), 12-20
- Ma, R., Mann, F., Wang, J., Lloyd-Evans, B., Terhune, J., Al-Shihabi, A., & Johnson, S. (2020). The effectiveness of interventions for reducing subjective and objective social isolation among people with mental health problems: a systematic review. *Social psychiatry and psychiatric epidemiology*, 55, 839-876.
- Mabetha, K., Soepnel, L., Klingberg, S., Mabena, G., Motlathledi, M., Norris, S. A., & Draper, C. E. (2022). Social Support during pregnancy: A phenomenological exploration of young women's

- experiences of support networks on pregnancy care and wellbeing in Soweto, *South Africa. medRxiv*, 2022-04
- Maharaj, N. R. (2022). Adolescent pregnancy in sub-Saharan Africa—a cause for concern. *Frontiers in Reproductive Health*, 4, 984303.
- Mahmoudi, P., Elyasi, F., Nadi, A., & Ahmad Shirvani, M. (2023). The Effect of Maternal–Foetal Attachment–Based Training Programme on Maternal Mental Health Following an Unintended Pregnancy. *Journal of Reproductive and Infant Psychology*, 41(1), 26-42.
- Marici, M., Clipa, O., Runcan, R., & Pîrghie, L. (2023, June). Is rejection, parental abandonment or neglect a trigger for higher perceived shame and guilt in adolescents?. In *Healthcare* (Vol. 11, No. 12, p. 1724). MDPI.
- McGorry, P. D., Mei, C., Chanen, A., Hodges, C., Alvarez-Jimenez, M., & Killackey, E. (2022). Designing and scaling up integrated youth mental health care. *World Psychiatry*, 21(1), 61-76
- Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Helping people change*. Guilford press.
- Mokoena, P., & Van Breda, A. D. (2021). School dropout among female learners in rural Mpumalanga, South Africa. *South African Journal of Education*, 41(3).
- Moudatsou, M., Stavropoulou, A., Philalithis, A., & Koukouli, S. (2020, January). The role of empathy in health and social care professionals. In *Healthcare* (Vol. 8, No. 1, p. 26). MDPI
- Musyimi, C. W., Mutiso, V. N., Nyamai, D. N., Ebuenyi, I., & Ndeti, D. M. (2020). Suicidal behavior risks during adolescent pregnancy in a low-resource setting: A qualitative study. *PLoS one*, 15(7), e0236269.
- Mutahi, J., Larsen, A., Cuijpers, P., Peterson, S. S., Unutzer, J., McKay, M., ... & Kumar, M. (2022). Mental health problems and service gaps experienced by pregnant adolescents and young women in Sub-Saharan Africa: a systematic review. *EClinicalMedicine*, 44.
- Mutai, K. T., & Otieno, G. O. (2021). Utilization of focused antenatal care among expectant women in Murang'a County, Kenya. *Pan African Medical Journal*, 39(1).
- Patterson, L. E., & Welfel, E. R. (1994). *The counseling process*. Thomson Brooks/Cole Publishing Co.
- Raby, C., Dowse, T., & Bennet, L. (2008). Postpartum/newborn patients: who are they and do they all need the same amount of nursing care?. *Journal of Nursing Management*, 16(2), 198-203.
- Rangachari, P., & L. Woods, J. (2020). Preserving organizational resilience, patient safety, and staff retention during COVID-19 requires a holistic consideration of the psychological safety of healthcare workers. *International journal of environmental research and public health*, 17(12), 4267.
- Remien, R. H., Stirratt, M. J., Nguyen, N., Robbins, R. N., Pala, A. N., & Mellins, C. A. (2019). Mental health and HIV/AIDS: the need for an integrated response. *AIDS (London, England)*, 33(9), 1411

- Roupetz, S., Stein, J. Y., Anderson, K., Kaiser, M., Mitreuter, S., & Glaesmer, H. (2023). Mother-child relationship representations of children born of sexual violence in Post-WWII Germany. *Journal of Child and Family Studies*, 32(5), 1398-1410.
- Ruzibiza, Y. (2021). 'They are a shame to the community...' stigma, school attendance, solitude and resilience among pregnant teenagers and teenage mothers in Mahama refugee camp, Rwanda. *Global public health*, 16(5), 763-774.
- Sallay, V., Martos, T., Lucza, L., Papp-Zipernovszky, O., & Csabai, M. (2023). Health Psychology Services for People in Disadvantaged Regions of Hungary: Experiences from the Primary Health Care Development Model Program. *International Journal of Environmental Research and Public Health*, 20(5), 3900.
- Sender, A., Friedrich, M., Schmidt, R., & Geue, K. (2020). Cancer-specific distress, supportive care needs and satisfaction with psychosocial care in young adult cancer survivors. *European Journal of Oncology Nursing*, 44, 101708
- Sheikh, A., Anderson, M., Albala, S., Casadei, B., Franklin, B. D., Richards, M., ... & Mossialos, E. (2021). Health information technology and digital innovation for national learning health and care systems. *The Lancet Digital Health*, 3(6), e383-e396
- Sheridan Rains, L., Johnson, S., Barnett, P., Steare, T., Needle, J. J., Carr, S., ... & Simpson, A. (2021). Early impacts of the COVID-19 pandemic on mental health care and on people with mental health conditions: framework synthesis of international experiences and responses. *Social psychiatry and psychiatric epidemiology*, 56, 13-24.
- Sloan, M., Naughton, F., Harwood, R., Lever, E., D'cruz, D., Sutton, S., ... & Gordon, C. (2020). Is it me? The impact of patient-physician interactions on lupus patients' psychological well-being, cognition and health-care-seeking behaviour. *Rheumatology Advances in Practice*, 4(2), rkaa037.
- SmithBattle, L., & Freed, P. (2016). Teen mothers' mental health. *MCN: The American Journal of Maternal/Child Nursing*, 41(1), 31-36.
- Sobngwi-Tambekou, J. L., Tsague-Agnoux, M., Fezeu, L. K., & Ndonko, F. (2022). Teenage childbearing and school dropout in a sample of 18,791 single mothers in Cameroon. *Reproductive Health*, 19(1), 10.
- Stabouli, S., Sommer, A., Kraft, S., Schweer, K., Bethe, D., Bertholet-Thomas, A., ... & Oh, J. (2024). Addressing the psychosocial aspects of transition to adult care in patients with cystinosis. *Pediatric Nephrology*, 1-14
- Sultana-Grixti, S., Cassar, O. A., & Savona-Ventura, C. (2024). Evidence-Based Clinical Practice in Contraceptive Counselling and Care. *Textbook of Contraception, Sexual and Reproductive Health*, 71
- Teela, L., Haverman, L., Burgess, C., Buckova, P., Vandenabeele, K., Golan, G., ... & Torres-Ortuño, A. (2023). The results of a survey about psychosocial care throughout Europe. *Haemophilia*, 29(3).
- Teisberg, E., Wallace, S., & O'Hara, S. (2020). Defining and implementing value-based health care: a strategic framework. *Academic Medicine*, 95(5), 682-685.

- Thwala, S. L. K., Okeke, C. I., Matse, Z., & Ugwuanyi, C. S. (2022). Teachers' perspectives on the implementation of teenage mothers' school re-entry policy in Eswatini Kingdom: Implication for educational evaluators. *Journal of community psychology, 50*(2), 684-695.
- Toyama, M., Castillo, H., Galea, J. T., Brandt, L. R., Mendoza, M., Herrera, V., ... & Miranda, J. J. (2017). Peruvian mental health reform: a framework for scaling-up mental health services. *International journal of health policy and management, 6*(9), 501.
- UNICEF. Trends in early childbearing, UNICEF data, monitoring the situation of women and children. 2022. Available from <https://data.unicef.org/>
- Wainaina, C. W., Sidze, E. M., Maina, B. W., Badillo-Amberg, I., Anyango, H. O., Kathoka, F., ... & Okoror, C. E. (2021). Psychosocial challenges and individual strategies for coping with mental stress among pregnant and postpartum adolescents in Nairobi informal settlements: a qualitative investigation. *BMC pregnancy and childbirth, 21*, 1-11.
- Winter, L. A., & Hanley, T. (2023). *The SAGE handbook of counselling and psychotherapy*.
- World Health Organization. WHO recommendations on antenatal care for a positive pregnancy experience. World Health Organization; 2016.
- Xavier, C., Benoit, A., & Brown, H. K. (2018). Teenage pregnancy and mental health beyond the poartum period: a systematic review. *J Epidemiol Community Health, 72*(6), 451



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