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The Mental Health of Ethnic Minority Youths in South Korea and Its Related Environmental Factors: A Literature Review

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Objectives: With increasing concerns for the rapidly growing minority population in South Korea, this literature review addressed a range of mental health risks among multiethnic youths (MY) in South Korea by 1) comparing mental health outcomes with those of native-born youths and 2) identifying multiple layers of relevant environmental factors, from family and school relationships to culture. **Methods:** We reviewed 54 studies that fulfilled specific inclusion criteria. **Results:** Multiple common risk/protective factors, including family separation, family relationship quality, parental socioeconomic and mental health status, social relationships at school, and cultural acceptance, were noted. **Conclusion:** In general, empirical evidence indicates that minority youths have relatively heightened risks for emotional and behavioral problems. Future studies must elucidate the complex interplay between multiple risk and protective factors and the long-term adaptation and mental health service utilization of MY.

Key Words: Ethnic minority youth; Mental health; Minority health; Adjustment.

INTRODUCTION

Cultural and ethnic diversity is a growing trend in contemporary societies due to global migration [1]. South Korea, once an ethnically homogeneous society, is also experiencing a burgeoning ethnic minority population, with an influx of foreign workers and immigrants through marriage [2]. In 2008, when the Multicultural Family Support Act was first implemented, the number of multicultural families in the national survey was 144000, but this number increased to 330000 in 2017, suggesting that the number of multicultural families more than doubled over the past decade [3]. Although this change can help foster positive diversity, minority groups are, at best, often underrepresented and, at worst, discriminated against or socially excluded [4]. This is particularly the case for ethnic minority youths who are faced with the challagenges of multicultural identities.

According to the 2018 national census data, the highest proportion of multiethnic youths (MY) comprise children born in South Korea to a Korean and a foreign spouse [who migrated mostly from China or Southeast Asian countries (80.4%)], followed by children born to foreign-born parents (12.8%), and children born in a foreign country to foreign parent(s) who later immigrated to South Korea (6.8%) [2]. Therefore, most MY in South Korea are 2.5 generation Korean-born youths, with one foreign-born parent. In addition to the stress of being part of an ethnic minority, including stress due to discrimination and issues about belonging and identity [5,6], MY may experience stress as a result of contact between the distinct culture of foreign parent(s) and the culture of the majority [7]. These sociocultural adversities could make MY vulnerable to mental health problems.

With the increasing MY concerns, recent studies have examined mental health outcomes in the Korean society. However, to our knowledge, no literature review has been conducted to integrate the empirical findings of these studies. Thus, the goal of the present review was to assess the mental health of MY by comparing it to that of native-born Korean youths (NKRY) in order to monitor the mental health status of MY and to systematically summarize the effect of various contextual variables on their mental health. By employing the Bronfenbrenner's ecological system model [8], which underlines the importance and influence of the child's own contextual

surroundings, we also summarized findings on the influence of multiple layers of social environments on the mental health of MY, from the most proximal familial influences to the most distal school, community, and cultural influences.

METHODS

Search and selection

We searched for empirical research papers on mental adaptation among school-aged MY and NKRY, with a minimum sample size of 25. Articles were excluded if they 1) were qualitative or reviews, 2) were irrelevant to the main topic (e.g., physical health and school adaptation), or 3) used unpublished data (e.g., thesis/dissertation).

Articles written in the English and Korean languages (published up until March 2019) were searched systematically in five online databases (International journals: PubMed, Scopus, and Web of Science; Korean journals: DBPIA and RISS). The following key search terms were used: multiethnic youths (multicultural OR bicultural OR biethnic OR multiethnic) AND (children OR adolescent OR youth OR teenage) AND mental health (psychiatr* OR psycholog* OR mental OR psychosocial OR wellbeing OR adjustment OR adaptation OR protective factor OR risk factor OR vulnerability factor OR resilience OR emotion OR behavior OR behaviour) AND Korea (Korea OR Korean). The search strategy was adjusted for each database. Initially, 507 articles were identified. After excluding duplicates and irrelevant articles by reviewing the titles and abstracts, 54 articles were finally included (Table 1, Fig. 1).

RESULTS

Mental health among multiethnic youths

Mental health problems can be categorized into internalizing and externalizing problems. Case-control studies that compared internalizing problems in MY, notably, depression and anxiety symptoms, with those of NKRY, showed variations in relative prevalence or severity. No significant difference was noted in reports on the prevalence and severity of internalizing symptoms including depressive and anxiety symptoms and suicidal ideation [9-12]. In other studies, however, the prevalence or severity of depressive and anxiety symptoms and suicidal behaviors among MY was high [13-16], even after adjusting for other sociodemographic variables [17,18]. Inconsistent results across studies may be attributed to varying sample characteristics. For instance, one national representative study noted that the relative risk for internalizing problems in MY differed according to sex, such that a relatively high prevalence of mood symptoms and suicidal ideation was observed only among male, but not female, youths [14]. Additionally, when compared with native-born Korean children, teacher-rated anxiety and depressive symptoms were higher only among younger (8–10 years), but not in older, MY [15].

For more lethal symptoms, such as history of suicide attempts and hospitalization after a suicide attempt, the risk is two to three times higher among MY than among native-born adolescents, although a similar result was not obtained for suicidal ideations/plans [10,12,19]. This suggests that despite the lack of difference in the prevalence of suicidal ideations/plans between MY and NKRY, MY are more likely to attempt suicide, which warrants special attention. In addition to these clinical problems, young MY consistently re-
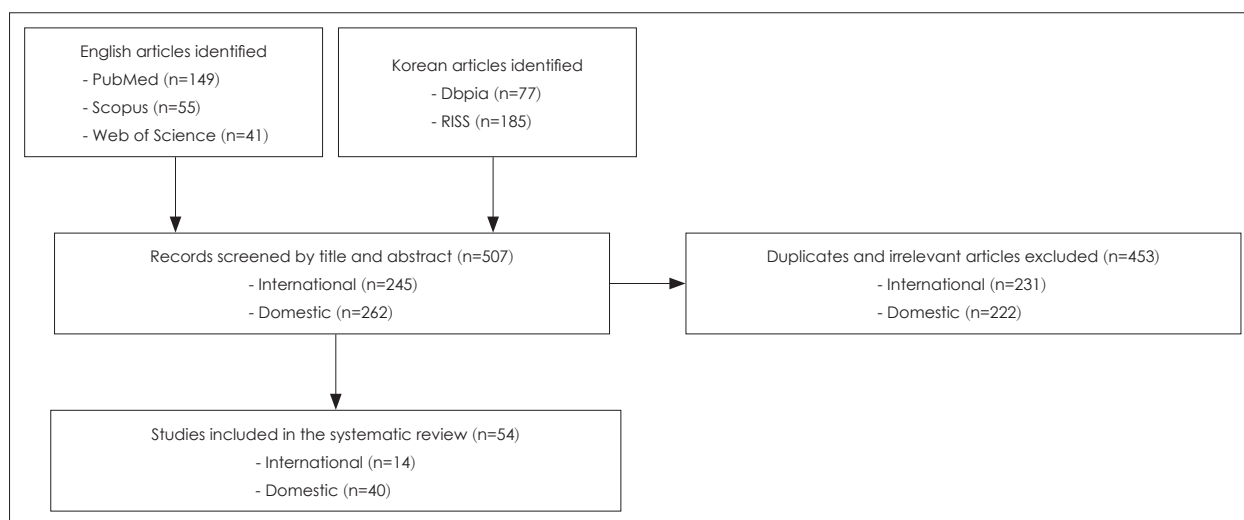

Fig. 1. Search strategy and article selection process.

Table 1. Included studies

Author	Population	N	Mean age (range)	Outcomes (assessment tools)	Comparison group
Ahn et al. [10]	MY	617	14.7 (13−18)	Depressive mood, suicide attempt (single-item questions adopted from the KYRBS)	Native-born Korean adolescents (n=66302)
Bahk et al. [14]	MY	2667	N/R (13−18)	Depressive mood, suicidal ideation, plans and attempts (a single-item question adopted from the KYRBS)	Native-born Korean adolescents (n=291 657)
Cho [31]	MY (children of a foreign-born mother and a Korean-born father)	2811	N/R (9−15)	Depressive symptoms (a single-item author' question)	
Cho [59]	MY (children of a foreign-born mother and a Korean-born father)	121	N/R (12−18)	Externalizing problems (K-YSR)	
Choi et al. [26]	MY	115	14.4 (12−18)	Online game addiction (Lemmens et al. question) [87], juvenile delinquents (three items)	Adolescents in monocultural familes (n=131)
Choi [50]	Korean-Japanese MY	309	14.2 (12−18)	Internalizing and externalizing problems (K-YSR)	
Chung and Lim* [47]	MY (children of a foreign-born mother and a Korean-born father)	164	12.5	Depressive symptoms (CES-D), self-esteem (RSE)	
Hwang and Heo [34]	MY	86	N/R (7−12)	Social anxiety (K-SAS)	
Jang et al. [16]	MY	3423	N/R (14−19)	Depressive symptoms (a single question adopted from the KYRBS)	Native-born Korean adolescents (n=323934)
Jeong [83]	MY (children of a foreign-born mother and a Korean-born father)	480	N/R (14−19)	Psychiatric problems (SCL-47), resilience (ER)	
Jiang and Bae [51]	MY	216	11.9 (9−20)	Psychological maladjustment (a 14-item questionnaire assessing psychological maladjustment)	
Jin [48]	MY (children of a foreign-born parent and a Korean-born parent)	201	N/R (10−12)	Internalizing (K-YSR) and externalizing problems (a 6-item author's questionnaire assessing aggressiveness)	

Table 1. Included studies (Continued)

Author	Population	N	Mean age (range)	Outcomes (assessment tools)	Comparison group
Ju et al. [13]	MY (children of a foreign-born mother and a Korean-born father)	665	N/R (13–18)	Depressive mood, suicidal ideation, plan and attempt (single-item questions adopted from KYRBS)	Native-born Korean adolescents (n=62320)
Jwa [84]	MY (foreign-born MY)	187	16.3 (9–24)	Depression/anxiety symptoms (K-YSR)	
Kang et al. [11]	MY	243	N/R (7–12)	Teacher's ratings of internalizing and externalizing problems (K-TRF)	Native-born Korean children (n=243)
Kang and Kim [41]	MY (children of a foreign-born mother and Korean-born father)	269	N/R (9–12)	Internalizing and externalizing problems (K-YSR)	
Kim and Kim [58]	MY	206	N/R (13–15)	Internalizing and externalizing problems (K-YSR)	
Kim et al. [85]	MY (children of a foreign-born mother and Korean-born father)	113	11.3 (10–13)	Depression and anxiety symptoms (K-YSR)	
Kim et al. [12]	MY	666	14.5 (13–18)	Depressive mood, suicidal ideation, plan and attempt (single-item questions adopted from the KYRBS)	Native-born Korean adolescents (n=71348)
Kim and Kim [39]	MY (children of a foreign-born mother and Korean-born father)	179	N/R (11–18)	Depression and anxiety symptoms (KGHQ-20)	
Kim et al. [37]	MY	138	9.3 (9–11)	Self-esteem (a 7-item questionnaire derived from the PCSC)	
Kim [53]	MY (children of a foreign-born mother and Korean-born father)	120	N/R (7–12)	Internalizing problems (K-YSR), externalizing problems (a 10-item questionnaire measuring aggressiveness and delinquency adopted from KYPS)	
Kim [55]	MY (children of a foreign-born mother and Korean-born father)	314	N/R (7–12)	Self-esteem (a 6-item questionnaire derived from RSE)	
Kim and Hong [35]	MY	204	N/R (10–12)	Internalizing and externalizing problems (K-YSR)	
Lee [23]	MY	795	N/R (12–18)	Experience of violence, stress, depression, suicidal ideation (KYRBS)	Native-born Korean adolescents (n=62649)
Lee [38]	MY	191	N/R (11–12)	Internalizing and externalizing problems (each 10-item questionnaire measuring depression, anxiety, and aggressiveness derived from CBCL)	

Table 1. Included studies (Continued)

Author	Population	N	Mean age (range)	Outcomes (assessment tools)	Comparison group
Lee et al. [24]	MY	378	N/R (11–13)	Iinternalizing and externalizing problems (K-YSR)	Native-born Korean adolescents (n=382)
Lee et al. [49]	MY (children of vietnamese mother and Korean-born father)	296	11.5 (9–18)	Self-esteem (3-item from RSE)	
Lee [46]	MY	1597	16	Depression, social withdrawal, self-esteem (questionnaires adopted from MAPS)	
Lee [61]	MY (children of a foreign-born mother and Korean-born father)	304	N/R (13–18)	Internalizing and externalizing problems (K-YSR)	
Lee et al. [60]	MY	1348	14	Depression, social withdrawal (questionnaires adopted from MAPS)	
Moon et al. [29]	MY	1812	N/R (9–12)	Depressive symptoms (single question)	
Moon and An [86]	MY (children of a foreign-born mother and Korean-born father)	125	11.4	Psychiatric symptoms (SCL-90)	
Oh [36]	MY	4775	15.3 (9–24)	Depressive moods (a single-item question adopted from NSMF)	
Oh and Jwa [32]	MY (Korean-born MY and foreign-born MY)	4775	12.6 (9–24)	Depressive moods (a single-item question adopted from NSMF)	
Paik and Yeum [28]	MY	1343	14	Depression (questionnaires adopted from MAPS)	
Park and Nahm* [22]	MY	107	N/R (9–12)	Self-esteem (self-esteem inventory for children in Korea)	Native-born Korean children (n=100)
Park et al. [52]	MY	4141	N/R (9–18)	Depressive moods (a single-item question adopted from NSMF)	
Park et al. [18]	MY	3995	14.6	Substance use, suicidality (questionnaires assessing alcohol use, smoking, drug use, suicidal ideation, plan, and attempts adopted from KYRBS)	Native-born Korean adolescents (n=12876) North Korean adolescents (n=297)
Park*† [45]	MY (children of a foreign-born mother and Korean-born father)	403	11.4 (13–14)	Internalizing problems (K-YSR)	
Park and Jang [40]	MY (children of a foreign-born mother and Korean-born father)	88	14.0 (11–19)	Ego identity (Korean ego identity scale)	

Table 1. Included studies (Continued)

Author	Population	N	Mean age (range)	Outcomes (assessment tools)	Comparison group
Park and Nam [15]	MY	101	7.5 (5–12)	Teacher's rating of internalizing and externalizing problems and social relationships (KPRC-TF)	Native-born Korean children (n=248)
Park [43]	MY (children of a foreign-born mother and Korean-born father)	121	N/R (7–15)	Self-esteem (RSE)	
Park [25]	MY	734	14.5	Substance use (questionnaires assessing alcohol use, smoking, drug use adopted from KYRBS)	Native-born Korean adolescents (n=66217)
Park and Lee [19]	MY	727	14.9	Suicide attempt (a single question adopted from the KYRBS)	
Rhee and Lee* [44]	MY (children of a foreign-born mother and Korean-born father)	210	N/R (13–14)	Internalizing and externalizing problems (K-YSR)	
Ryou et al. [33]	MY (foreign-born MY, children of foreign-born mother)	120	16	Depression (CES-D), anxiety (Beck's inventory for measuring clinical anxiety), suicidal ideation (SSI)	
Seol et al. [56]	MY	131	11.9 (11–13)	Self-esteem (RSE)	
Song and Park [54]	MY (children of a foreign-born mother and Korean-born father)	242		Withdrawal behaviour (K-CBCL)	
Yang et al.* [27]	MY (children of a foreign-born mother and Korean-born father)	305	N/R (9–15)	Depressive symptoms (CDI), self-esteem (RSE)	
Yeom and Yang* [42]	MY (children of a foreign-born mother and Korean-born father)	70	N/R (7–12)	Internalizing and externalizing problems, social competence (K-CBCL)	
Yi and Kim [9]	MY (children of foreign mother)	698	14.8	Depression, suicidal ideation, smoking (a single-item question adopted from the KYRBS)	Native-born Korean adolescents (n=64728)
Yim and Park [17]	MY	804	N/R (13–18)	Depression, suicidal ideation, substance use (single-item questionnaires adopted from the KYRBS)	Native-born Korean adolescents (n=70743)
Yun and Yang [57]	MY	136	N/R (10–19)	Delinquency (author's questionnaire)	

*indicates that sample includes child-mother pairs, †indicates longitudinal study. CDI: Kovac's Children's Depression Inventory, CES-D: Center for Epidemiological Studies-Depression, ER: Ego Resiliency Scale, K-APQ: Korean Adolescent Risk-Taking Questionnaire, K-CBCL: Korean version of Child Behavior Checklist, KGHQ-20: Korean version of the general health questionnaire, KPRC-TF: Korean Personality Rating Scale for Children-Teacher Form, K-SAS: Korean version of Social Anxiety Scale, K-TRF: Korean Teachers' Rating Form, KYPS: Korean Youth Panel Survey, KYRBS: Korea Youth Risk Behavior Web-based Survey, K-YSR: Korean Youth Self-Report, MAPS: Multicultural Adolescents Panel Study, MY: multiethnic youths, N/R: not reported, NSMF: National Survey of Multicultural Families, PCSC: Perceived Competence Scale for Children, PQ-Y: Parentification Questionnaire-Youth, RSE: Rosenberg's Self-Esteem Scale, SCL: Symptom Checklist, SSI: Scale for Suicidal Ideation

port poorer self-image and higher perceived stress than do native-born children across multiple domains, including appearance, academic performance, and peer and family relationships [20-23].

Externalizing problems include diverse behavioral symptoms, such as aggressive and hyperactive behaviors and delinquencies, including smoking and drinking. One study noted that young MY, between the ages of 5 and 12 years, were more likely to engage in hyperactive behaviors, as rated by their teachers, in comparison to native-born peers [15]. Another study showed that young MY between the ages of 11 and 13 years had higher scores on externalizing problems including delinquency and aggression compared to their monocultural peers [24]. For adolescent MY, studies have focused more on delinquent behaviors. In general, MY display a high rate of smoking or substance use [9,10,17,18], but behaviors differ as a function of the multicultural family type. Compared with native-born adolescents, MY with foreign-born fathers or foreign-born parents were more likely to smoke or use drugs. On the contrary, MY with foreign-born mothers were less likely to smoke or use alcohol [25]. Moreover, adolescents from multicultural families had higher game addiction factor and mood modification scores than those from monocultural families. However, there was no significant difference in juvenile delinquency between MY and NKRY adolescents [26].

Associated environmental factors

Sociodemographic factors

Socioeconomic positions, such as low family income [19,27-29], non-desirable occupation of the father [30], and low parental education level [29,31] have been linked to increased mental health risks, including depressive symptoms, suicide attempts, and problematic alcohol use, among MY. Moreover, one's living arrangement was noted as a significant factor; MY who were not currently living with their parents were at a high risk of attempting suicide [19].

Family-related demographic factors are closely associated with the mental health of MY. MY with foreign-born fathers or foreign-born parents are at a greater risk of internalizing and externalizing problems, including depressive moods and suicidal behaviors, than MY with foreign-born mothers [14,19] or native Korean parents [16,18]. Moreover, foreign-born MY who migrated to South Korea experience a higher rate of social discrimination and peer victimization, and thus, report greater depressive moods as compared to Korean-born MY [32,33]. Specifically, family separation during the immigration process is a significant risk factor; the longer the separation from parents, the higher the level of depression and

anxiety symptoms as well as suicidal ideation [33].

Familial factors

Family relationship quality, which is assessed as family cohesion, support, communication, and subjective satisfaction, also plays an important role in the overall psychological adaptation of MY. It decreases mental health risks such as depression, anxiety, and suicidal ideation [28,31,33-36] and improves self-esteem [37]. In contrast, the risk for depression was high among MY who spent less time conversing with their fathers and those whose parents showed a low degree of interest in them [29]. Moreover, verbal or physical violence between parents or toward young MY predicted aggressiveness, as well as depressive and anxiety symptoms [38].

Positive parenting, which involves the adoption of an open communication style [39] and consistent and less authoritarian parenting [40], was associated with better mental health (e.g., decreased depression and anxiety and a better-developed identity) among MY. The extent of a mother's acceptance of her children's emotions was also associated with the self-esteem of young MY [22]. In addition, parentification, which is the process whereby a child is obliged to act as a parent to their own parent or sibling, was negatively correlated with both externalizing and internalizing problems among young MY, but not among monocultural family youth. This suggests that family strengths, shame, and self-differentiation are significant mediators between parentification and the mental health of young MY [24].

In addition to the influence of the mother-child relationship [41], the mother's psychosocial adaptation also affects internalizing and externalizing problems in MY [42]. Particularly, for MY with foreign mothers, the ease or difficulty with mother's sociocultural adaptation, acculturative stress, and perceived discrimination in South Korea can predict low self-esteem, depressive symptoms, and behavioral problems among MY [27,40,42-45]. One longitudinal study noted that acculturative stress and marginalization (from both host and home cultures) of foreign mothers were associated with the decreased multicultural acceptance of MYs, which also predicted greater depressive symptoms and social withdrawal three years later. Conversely, successful integration of a mother's original and host culture predicted low likelihood of the occurrence of depression and social withdrawal in children [46]. In a mediation study, a mother's perceived discrimination and acculturative stress influenced the internalizing symptoms of the MY via an increase the mother's depressive symptoms [47]. Proficiency in the Korean language was found to have a positive effect [47-49]. Given the significant association between Korean language ability and both internalizing and externalizing symptoms [29,35,36,50] and psychological

maladjustment of MY [51], MY whose mothers have difficulty learning the Korean language may have poorly developed language abilties, which may indirectly influence their adaptation.

Social relationships

The influences of other social relationships have been reported. Discrimination from friends, teachers, relatives, and even strangers, has been associated with heightened internalizing and externalizing problems [31,35,50,52,53], withdrawal behaviors [54], and decreased self-esteem among MY [55]. One mediation study suggested that experiencing social discrimination may adversely affect the self-image of MY since it leads to the internalization of stigma [56]. Another study reported that dual identity partially mediates the effect of social rejection on withdrawal behaviors [54]. Problematic relationships with peers have deleterious psychosocial impacts such as a high risk for depressive moods, suicide ideation or attempts, and delinquent behaviors [12,23,29,31, 53,57]. Moreover, stress resulting from conflicts with teachers has a significant impact on suicide attempts by MY when compared to other stressors [19].

Positive aspects of social relationships can also enhance MY adaptation. In general, perceived social support is associated with decreased internalizing symptoms [53,58], delinquent behaviors [57], improved self-esteem [27], and a more developed identity in MY [40]. Specifically, support at school from peers, teachers, and after-school teachers has been independently associated with low levels of depressive symptoms [28,33]. A path analysis further noted that social support acts as a buffer against stresses from discrimination or problematic peer relationships, and attenuates the psychological impact of such distress [53].

Cultural adjustment

Cultural adjustment can be a psychological challenge for MY when one has to navigate one's Korean culture with that of a foreign-born parent(s). The difficulty associated with cultural adaptation among MY has been linked to internalizing and externalizing problems [41,48]. A number of mediation studies noted that stress associated with cultural adaptation among MY influences internalizing problems by decreasing one's sense of identity [58]. Additionally, stress associated with cultural adaptation predicts externalizing problems (e.g., delinquency and aggressiveness) via a increase difficulty in school adaptation [59]. One moderation study showed that acculturation stress in MY affects the levels of psychological maladjustment whereas resilience moderates the relationship between acculturation stress and the levels of psychological maladjustment [51]. While marginalization

by both the Korean culture and that of foreign parents is associated with greater depressive symptoms and social withdrawal [31,60], bicultural acceptance [27,60], bicultural efficacy [48], and a well-established ethnic identity [49,50] are consistently linked to better psychological adaptation. In another study, the degree of the perception of an individual as Korean by others, rather than one's own self-perception, is associated with overall internalizing (social withdrawal, anxiety, and depression) and externalizing problems [61], highlighting the significance of the social perception of MY.

DISCUSSION

This review addressed a range of mental health risks among children from multicultural families. We aimed to, first, compare the mental health outcomes of MY with those of NKRY and, second, identify multiple layers of environmental factors that may facilitate or inhibit psychological adjustment (Fig. 2).

Ethnic minority status and relevant socioeconomic disadvantages pose mental health risks for MY [62,63]. Consistent with the results of studies on ethnic minorities in other countries [64,65], much empirical evidence supports disparities in mental health outcomes between MY, who are at a higher risk for emotional and behavioral problems, and their native-born counterparts. However, it should be noted that risks/outcomes vary across studies. Differences may be attributed to the heterogeneous outcome variables or samples examined across studies. Specifically, large-scale studies reveal more than a two-fold risk for suicidal behavior among MY [14,19] compared to NKRY. This suggests the need for early preventive interventions.
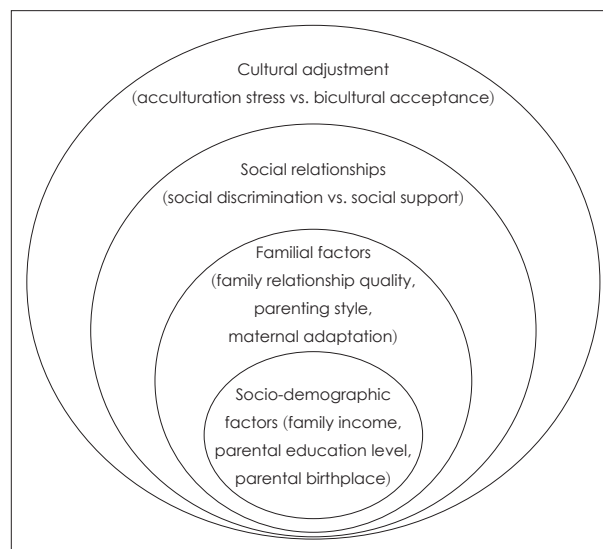
Fig. 2. Multiple layers of contextual factors affecting multiethnic youths mental health.

Proximal family variables were the most studied environmental factors for assessing associations with psychological mental health in MY. Among family-related mental health risks, separation from parents is the most consistent predictor of mental health issues, which include depression, anxiety, and suicidal ideation and attempts [19,33]. This is especially the case for immigrant MY, who experience family separation during the immigration process, which may have adverse mental health effects on them [33]; thus, the impact of long-term mental health on future integration in South Korea should be carefully considered. Moreover, poor family relationships and domestic violence predict a high risk for mental health issues in MY [38]. Previous studies involving immigrant women who married Korean men showed higher marital distress in multicultural families than in native Korean families [66]. This marital distress often presented as a high prevalence of domestic violence. Robust social protective systems are needed for MY who do not have familial support for successful multicultural adjustment.

Limited education and income opportunities partially cause ethnic disparities in access to mental health resources [67,68]. These social disadvantages pose risks for deleterious psychosocial adaptation among children, as well [69,70]. Mental health outcomes among MY in South Korea are also influenced by the parents' ethnicity and socioeconomic status [19,27,30,31]. Moreover, maternal psychosocial problems, notably depression and cultural maladjustment, increase the mental health risks of children. This is consistent with the well-established notion of "intergenerational transmission" of maternal mental health [71,72]. Given the positive influence of helpful social support provided for foreign-born mothers and for the adjustment of MY [73], social support systems for first-generation immigrants could have many secondary effects on the mental health of their children.

Social support and belonging are important for youth who feel isolated from ethnic majority groups [74]. Social discrimination has deleterious effects on the mental health of MY. However, social support can act as a buffer against social adversity [53]. Our review particularly highlights the major role of MY relationships, including peer and teacher relationships, at school. Previous studies noted that MY experience more difficulty in overall adjustment at school compared to native-born youths. The parameters for adjustment include relationships with teachers and peers, as well as academic adaptation and rule observation [20,21]. In one case-control study, MY reported more problems with peer relationships. They feel excluded or are dissatisfied with their peer group compared to their native-born peers [22]. Furthermore, studies that used data on Korean youth showed that MY were three to five times more likely to report being victims of school

violence [10,12,23], and specifically those with foreign-born mothers were 4.1 times, and those with foreign-born fathers were 17.4 times at a higher risk of victimization respectively [75]. Given the critical role of peer relationships in the psychological adjustment of youth later in life [76,77] and the adverse effect of peer bullying on future psychopathology [78], interventions to enhance school connectedness and peer relationships are necessary for healthy MY adjustment.

The integration of distinct cultures and ethnic identities is another important challenge for MY. MY experience difficulties coping with being dissimilar to the majority of their peers. In addition to cultural differences, the perceived differences in appearance between MY and their peers contribute to poor school adaptation [79], which can adversely affect psychological wellbeing [29]. Psychological interventions could help foster more effective coping strategies. For instance, a social-belonging intervention in the United States yielded long-term positive effects on the health and academic achievement of minority students. This was accomplished by monitoring the changes in the perception of youths regarding the social consequences of one's minority status [80]. Given the effect of such societal perceptions on adaptation [61], educating native-born youths to accept ethnic and cultural differences is necessary.

Limitations

Our systematic review had a few notable limitations. First, a meta-analysis could not be conducted given the extensive heterogeneity in sample demographics (e.g., age, parental origin), outcome variables, and measurements. Second, as this review only included published articles, a publication bias could be present. Thus, conclusions regarding the true nature of MY maladjustment should take these limitations into consideration.

Suggestions for future research

Future studies should investigate how multiple risk and protective factors work together to impact outcomes. Although several studies have identified simple and correlational relationships between each factor and MY mental health outcomes, the effect of any individual factor cannot be fully understood without examining the complex interactions between variables [81]. Furthermore, a prospective study to investigate long-term mental health outcomes and causal relationships between variables over time is required. Lastly, given the disparities in the use of services among MY in other countries [82], the utilization of mental health services by MY must be explored. Future work is needed to address the gap between service needs and service utilization in order to tackle relevant psychosocial barriers.

CONCLUSIONS

We reviewed 54 studies to compare MY's mental health outcomes with those of NKRY's and to identify multiple layers of relevant environmental factors. In conclusion, empirical evidence indicated that MY have relatively heightened risks for emotional and behavioral problems. The multiple layers of contextual factors including socio-demographic factors, familial factors, social relationships, and cultural adjustment were identified and noted. Future studies must elucidate the complex interplay between multiple risk and protective factors and the long-term adaptation and mental health service utilization of MY.

Conflicts of Interest

The authors have no potential conflicts of interest to disclose.

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