



'The role of teacher, peer and parental support in the relation between racial marginalization and adolescent mental health'

“This thesis has been written as a study assignment under the supervision of a Utrecht University teacher. Ethical permission has been granted for this thesis project by the ethics board of the Faculty of Social and Behavioral Sciences, Utrecht University, and the thesis has been assessed by two university teachers. However, the thesis has not undergone a thorough peer-review process so conclusions and findings should be read as such.”

Name: Merel Bell, 6414710

Supervisor: Birol Akkuş

Youth Studies (2022-2023)

June, 2023

Abstract

Adolescence is often accompanied by a decline in mental health. This decline in mental health problems may be affected by racial marginalization. Nurturing relationships could be protective factors against this, but research on this has not been conducted sufficiently. The goal of this study was to understand whether teacher, peer and parental support function as a buffer against the negative effects of racial marginalization on mental health of adolescents with a non-Dutch background. A representative sample of adolescents was used in this study, utilizing cross-sectional data. A multiple regression analysis was conducted specifically on adolescents with a non-Dutch background (N = 1507). The results showed that racial marginalization has a significant negative effect on mental health. Parental support was found to function as a significant protective factor against this effect, while teacher support was found to enforce the negative effect of racial marginalization on mental health problems. Peer support was found to be non-significant. It is important to delve deeper into the role of parents and to consider the role teachers play in racial marginalization and mental health problems more. More knowledge about racial marginalization could lead to a reduction of it and its unwanted effect on adolescent mental health.

Samenvatting

Adolescentie gaat vaak gepaard met een verslechtering van de mentale gezondheid. Deze verslechtering in mentale gezondheid kan worden beïnvloed door raciale marginalisering. Sterke relaties kunnen beschermende factoren hiertegen zijn, maar dit is nog niet voldoende onderzocht. Het doel van dit onderzoek was om vast te stellen of steun van leraren, leeftijdsgenoten en ouders als buffer kan dienen tegen de negatieve gevolgen van raciale marginalisering op de mentale gezondheid van adolescenten met een niet-Nederlandse achtergrond. Een representatieve steekproef van adolescenten is gebruikt voor dit onderzoek, met gebruik van cross-sectionele data. Een multiële regressieanalyse is uitgevoerd, specifiek met adolescenten met een niet-Nederlandse achtergrond (N = 1507). De resultaten lieten zien dat raciale marginalisering een significant negatief effect heeft op mentale gezondheid. Ouderlijke steun bleek een significante beschermende factor te zijn tegen dit effect, terwijl leraren steun het negatieve effect van raciale marginalisering op mentale gezondheid bleek te versterken. Steun van leeftijdsgenoten bleek niet significant. Het is belangrijk om te verdiepen in de rol van ouders en om de rol van leraren bij raciale marginalisering en mentale gezondheidsproblemen, meer in acht te nemen. Meer kennis over de aspecten van raciale marginalisering kan leiden tot vermindering daarvan en de ongewenste effecten op mentale gezondheid.

Introduction

Adolescence is a vulnerable period in which many changes occur, often accompanied by a decline in mental health according to the Health Behavior in School-aged Children (HBSC) study (Boer et al., 2022). According to the HBSC Netherlands study, life satisfaction lowered from a 7.3 to a 6.3 (Boer et al., 2022). This increase in mental health problems is partly due to an increase in school pressure and the feeling of low social support (Nagata, 2020). Mental health is influenced by many other factors in life. According to Polos et al. (2022), racism is one of those factors and could lead to an increase of depressive symptoms. Racism is a frequent phenomenon in The Netherlands and interwoven in Dutch culture, according to some (Gruber, 2022; Weiner, 2014). According to the HBSC Netherlands study, 6-17% of adolescents experience racism at school (Boer et al., 2022). However, there is relatively little known about the effects of racism in social contexts, such as schools, which is important to know because of the negative health consequences for the life course (Polos et al., 2022) and the potential protective factors. Therefore, this study aims to define the problem of racism and mental health and the potential protective factors for adolescents with a non-Dutch background in The Netherlands.

Theoretical substantiation and empirical overview

Racial marginalization

To understand how protective factors against mental health problems work, it is important to know how experiencing racism affects mental health in the first place. Adolescence is a vulnerable developmental period influenced by many factors (Bronfenbrenner, 1992). One of those factors is school, which is a place of cognitive and social development, but also a place where adolescents are marginalized (Malone et al., 2021). Marginalization is conceptualized as the feeling of not belonging and not having the same access to the opportunities open to others and being treated differently because of sexuality, poverty, disability, or race (Messiou, 2012; Mowat, 2015). In the current study, the focus will be on the concept of being and/or feeling marginalized because of race, rather than the concept of racism because of racism's complexity. Racial marginalization is worrying, because adolescents who experience this are more likely to have mental health problems such as depression and anxiety and even more likely to report suicidal behaviors (Baiden et al., 2022; Brody et al., 2021; Mowat, 2015). The effects of early racial marginalization are also seen in alcoholism, drug use and domestic violence later in life (Greathouse-Amador et al., 2021). However, resilience might counteract these effects. Resilience is conceptualized as the

interaction of a child with trauma or a toxic environment in which success is achieved by, among others, the child's support systems (Condly, 2006). For example, when there is a warm relationship between child and parent, the child is more likely to be resilient. This is, however, often only the case when the child has certain traits, such as an easier temperament. These make them more socially skilled, resulting in closer relationships with peers and adults. This results in positive development and thus resilience.

Protective factors

So, for resilience to counteract the negative effects on mental health, close relationships are needed. Relationships in general are known to affect many parts of life such as happiness and health. Stable and nurturing relationships may even serve as protective factors (Keane & Evans, 2022). Research shows that teacher support is a protective environmental factor when it comes to negative outcomes on grades and academic persistence (Gale, 2020), but also when it comes to depressive symptoms (Cristini et al., 2011). According to recent research, teacher support is an independent protective factor, meaning that it even is a protective factor for adolescents without a supportive peer group and family (Butler et al., 2022). However, even though teachers might do their best to be supportive and inclusive, this does not mean children perceive it that way as well (Messiou, 2012).

Even though adolescents see their teachers often, they spend most of their time with peers (Chancy et al., 2022). Thereby, peers seem to be a big protective factor when it comes to mental health (Butler et al., 2022; Wenzing et al., 2021), especially for minority adolescents who oftentimes already face more stressors in life, such as living in more disadvantaged neighborhoods (Chancy et al., 2022). Previous research found that peers also are a protective factor when it comes to the negative effects of racial marginalization with stress factors from, for example, the neighborhood (Chancy et al., 2022; Juang et al., 2016). However, the literature about this is inconsistent, so the level of peers as a protective factor remains uncertain (Wenzing et al., 2021). Even though peers may be protective factors, they may also be risk factors regarding mental health concerning for example, bullying (Kilicaslan et al., 2022; Suldo et al., 2015). So, peers playing a big role in adolescent life can also be detrimental. The negative influence of peers could also work the other way around, meaning that adolescents who already struggle with mental health are more likely to have poor peer relationships due to stigma (Moses, 2010).

Another influential factor in adolescent life is the parents, whose supportive parenting may play a protective role when it comes to mental health (Brody et al., 2021; Trent et al., 2019). For example, more parental support is associated with more optimism among adolescents while low parental support is associated with lower self-esteem (Wenzing et al., 2021).

The gap

That mental health among adolescents is relatively poor is well established, but little is known about the differentiation of this among adolescents with a minority ethnic background. Because minorities already face other stressors in life (Chancy et al., 2022), they may also face different risk factors regarding mental health. Besides, the existing literature on mental health among minorities is mostly about black adolescents in the United States, whereas in Europe most prejudice is towards minorities of Muslim descent, already starting from a very young age (De Bruijn et al., 2020). Therefore, it is important to further our insight into the effects of racial marginalization on adolescents, especially because adolescence is a very sensitive period determinative for the rest of the lifespan (Nagata, 2020). Despite previous research establishing the supportive function of teachers, peers and parents, the role these factors play in racial marginalization remains uncertain. More knowledge about protective factors may be a starting point for developing more anti racism interventions and policies to reduce minority adolescents' relatively poor mental health (Dudovitz et al., 2021).

The current study

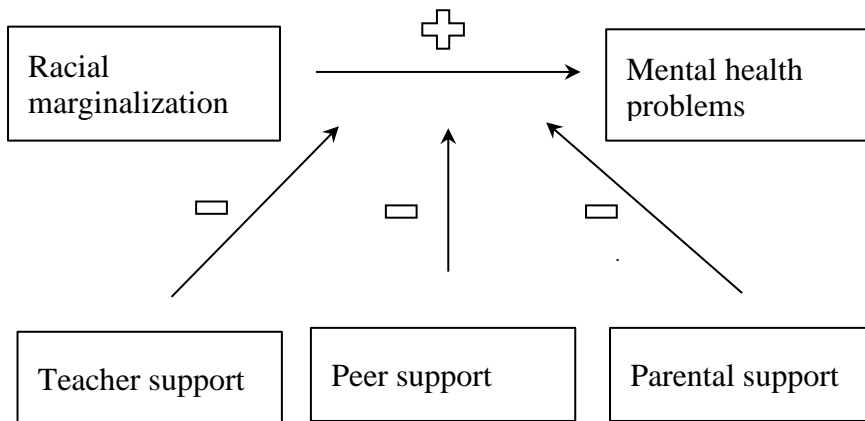
The central research question in this study is: Do teacher, peer and parental support have a negative moderating effect on the positive relation between racial marginalization and mental health problems of adolescents with a non-Dutch background? (see Figure 1). Based on the existing literature, it is safe to say that racial marginalization has a positive effect on adolescent mental health problems, also because of the vulnerable state adolescents are usually in. So, it is hypothesized (H1) that racial marginalization positively affects mental health problems for adolescents with a non-Dutch background. According to the literature, teacher, peer and parental support might be protective factors against this under the right circumstances. That is why it is hypothesized that teacher (H2a), peer (H2b) and parental (H2c) support will have a negative moderating effect on the relation between racial marginalization and adolescent mental health problems (see Figure 1).

Research model

Based on the review and analysis of the existing literature, a conceptual model is formed that hypothesized the relations between the above-mentioned variables.

Figure 1

The conceptual model of the current study



Methods

Participants

The Dutch HBSC 2017 study focused on adolescents aged 11 to 16 representative of the Dutch adolescent population. Because of the focus on racial marginalization in the current study, only adolescents with a non-Dutch background have been included in the sample ($N = 1931$). This means that, according to the standards of the Dutch Central Bureau of Statistics (2023) at least one of the participant's parents is not born in The Netherlands. Of the participants with a non-Dutch background, 46.9% was male and 53.1% was female. The educational level of the participants ranged from VMBO-b/k to VWO, with 17.4% attending VMBO-b/k, 30.0% attending VMBO-g/t, 22.9% attending HAVO and 29.7% attending VWO. The mean age of the participants was 14.75.

Design & procedure

The HBSC 2017 is a collaborative repeated cross-sectional study using surveys that focuses on adolescent wellbeing and health in Europe and North America. For this study, only data from The Netherlands were used. The participating schools were selected at random, but to make sure of a wider geographical spread rural and urban areas were taken into account. Schools were found fit to participate when they met the following inclusion criteria: being an independent branch with its own policy and management and providing education in all year levels. Afterwards, the schools ($N = 232$) were contacted and multiple schools seemed suitable and willing to participate ($N = 85$) (Stevens et al., 2018).

The surveys were taken during October and November of the year 2017. Beforehand, the participants were instructed with what was expected from them and had to give consent to participate in the study. Parents were informed about the study as well and were able to file a complaint about their children's participation in case of disagreement. To provide help about the sensitive topics from the survey, the participants were directed to the website of the children's telephone. Utrecht University obtained ethical approval for conducting the study (Stevens et al., 2018). Based on the repetition in multiple countries, the criticality and adjustments of the used methods of the HBSC study (Stevens et al., 2017) it can be said that the HBSC study has good reliability and validity.

Measuring instruments

The central research question in the current study is: Do teacher, peer and parental support have a negative moderating effect on the negative relation between racial

marginalization and the mental health problems of adolescents with a non-Dutch background? These concepts are included in the conceptual model (see Figure 1) and will be discussed in the following two sections. For analyzing the data, the Statistics Programme IBM Statistics 24 was used. A significance level of $p < .05$ was maintained. A correlational design was used to test the relationship between the independent variable racial marginalization and the dependent variable mental health problems.

Dependent variable

To measure mental health problems, a new variable had to be computed. This was done by combining multiple items from the questionnaire that matched the symptoms of anxiety and depression that were similar to the mental health problems related to racial marginalization according to literature. For example, items about feeling exhausted, being scared, irritable or feeling low often. To make sure the items were congruent to one another they were recoded to a 3-point Likert-scale of 1 = never to 3 = often. This new variable ($M = 21.7$, $SD = 5.2$) was tested on reliability ($\alpha = 0.82$).

Independent variables

The independent variable racial marginalization was measured with three questions about being treated unfairly both inside and outside of school by both peers and adults. For example, 'How often do the following people treat you unfairly or badly because of the country where either you, your parents or grandparents were born?'. These questions could be answered on a Likert-scale with 1 = never and 5 = very often. Out of these three items, a new scale variable was created that was used for measuring racial marginalization in the current study.

The moderator variable teacher support was measured with a new variable that summarizes the items about acceptance, care and trust. For example, 'I got the feeling that my teachers accept me the way I am'. These questions could be answered on a 5-point Likert-scale with 1 = totally agree and 5 = totally disagree. The moderator variable peer support was measured with questions about help, counting on, sharing and talking about problems and could also be answered on a 7-point Likert-scale with 1 = very much disagree and 7 = very much agree. For example, 'I can count on my friends when something goes wrong'. These items were calculated into a new scale variable for peer support. The last moderator variable is parental support. Parental support was also measured with a new calculated scale variable consisting of items about getting help from parents, receiving emotional support and talking

about problems. For example, 'I receive the needed emotional support'. These questions could be answered on a 7-point Likert-scale with 1 = very much disagree and 7 = very much agree.

Analyses

In order to answer the central research question, the sample was filtered to only the adolescents with a non-Dutch background who did not have any missings (N = 1507). Then, the linearity between the independent and dependent variable and the normality of the dependent variable were checked.

To test the hypotheses, a multiple regression analysis was conducted. The first step of this multiple linear regression analysis was adding the control variables sex, social economic status, age and education level. Social economic status (SES) was measured with the Family Affluence Scale (FAS) which measures concrete possessions, home characteristics and the amount of family holidays in the past year (Stevens et al., 2018). For the second step, the independent variable for racial marginalization was added to test the relationship between racial marginalization and mental health problems. To test whether parental, peer and teacher support moderated this relationship, interaction variables were made and added as a third step in the analysis.

Before computing these interaction terms, the variables of mental health problems (Y), parental (M), peer (M) and teacher support (M) were centralized to make sure the outcomes were interpretable (Field, 2018). This interaction effect showed whether there were moderating effects (Field, 2018). In this study, X and the three M's were all continuous variables at interval level.

Results

Descriptive statistics

Of all the participants with a non-Dutch background, 46.9% were male and 53.1% were female. The mean age of the participants ($N = 1507$) was 14.75 ($SD = 1.67$). The mean educational level was 2.66 ($SD = 1.08$), meaning that the mean educational level of the participants was between VMBO-g/t and HAVO. The means, standard deviations and sample sizes of the demographic variables are shown in Table 1. When it comes to racial marginalization, the mean score was quite low ($M = 1.46$, $SD = 0.74$) on a scale of 1 to 5 with a higher score meaning more experienced racial marginalization. Mental health problems had a mean of 21.80 ($SD = 5.44$) on a scale of 13 to 39, which suggests mental health problems are present. Looking at peer support ($M = 5.64$, $SD = 1.44$) with a scale of 1 to 7, and parental support ($M = 5.85$, $SD = 1.50$) which were both measured on a scale of 1 to 7 it can be said both have a high mean. When it comes to teacher support ($M = 2.42$, $SD = 0.96$), which was measured on a scale of 1 to 5, the mean was on the lower side. The descriptives of the predictor and outcome variables are shown in Table 2.

Table 1

Descriptive Statistics of the demographic variables Age, Education level and SES

Variable	Min/Max	<i>M</i>	<i>SD</i>
Age	11.02-20.57	14.75	1.67
Education level	1.00-4.00	2.66	1.08
SES	1.00-3.00	2.17	0.70

Note. $N = 1507$ for all variables.

Table 2

Descriptive Statistics of the variables Peer Support, Parental Support, Teacher Support, Racial Marginalization and Mental Health Problems

Variable	Min/Max	<i>M</i>	<i>SD</i>
Peer support	1.00-7.00	5.64	1.44
Parental support	1.00-7.00	5.85	1.50
Teacher support	1.00-5.00	2.42	0.96
Racial marginalization	1.00-5.00	1.46	0.74
Mental health problems	13.00-39.00	21.80	5.44

Note. $N = 1507$ for all variables.

Assumptions

Before analyzing the data was probable, few assumptions were checked. Both independent (racial marginalization) and dependent (mental health) were continuous variables which means they are suited for a regression analysis (Field, 2018). By using the Chart Builder function it was determined that the dependent variable mental health problems was distributed normally. Additionally, a chatterplot showed there was linearity between racial marginalization and mental health problems. The participants were independent and from a random sample (Stevens et al., 2018). The multiple regression analysis showed that there was no multicollinearity (VIF-value < 10).

Correlations

To see whether the variables correlated with each other, a Pearson correlation was conducted as shown in Table 3. This table shows that there was a positive significant relation ($p < .05$) between the independent variable racial marginalization and the dependent variable mental health problems ($r = .21, p < .001$). This means the more racial marginalization there is, the more mental health problems. When it comes to teacher, peer, parental support, the table shows that all three were significantly correlated with mental health problems. However, peer and parental support had a negative relationship, meaning that the more peer and parental support there is, the less mental health problems there are. The relationship

between mental health problems and teacher support is positive. Looking at the control variables age, sex, education level and socioeconomic status the table shows that age ($r = .13$, $p = .00$) and sex ($r = .27$, $p = .00$) had a positive significant relationship with mental health problems while education level and socioeconomic status did not (see Table 3).

Table 3

Correlation matrix of the dependent, independent and control variables

	1	2	3	4	5	6	7	8	9
1. Sex	1.00								
2. Age	-.02	1.00							
3. Education level	-.03	.08**	1.00						
4. SES	-.02	-.11**	.22**	1.00					
5. Peer support	.15**	-.06*	.05*	.11**	1.00				
6. Parental support	-.05*	-.16**	.03	.10**	.40**	1.00			
7. Teacher support	.07**	.12**	.03	-.03	-.13**	-.26**	1.00		
8. RM	-.02	.10**	-.13**	-.08**	-.12**	-.19**	.28**	1.00	
9. Mental health problems	.27**	.13**	.00	-.03	-.16**	-.41**	.27**	.21**	1.00

Note. RM = Racial marginalization; $N = 1507$ for all variables.

* $p < .05$. ** $p < .01$.

Multiple regression analysis

To test whether peer, parental and teacher support moderated the relationship between racial marginalization and mental health problems, a multiple regression analysis was conducted. In the first step of the analysis, only the control variables as predictors and mental health problems as the outcome variable were tested. This model was significant, $F(4, 1502) = 37.14$, $p < .001$. The control variables explained 9% ($R^2 = .09$) of the variance of mental health problems.

In the second step of the analysis, racial marginalization was added as the independent variable. This model also was significant, $F(5, 1501) = 44.64, p < .001$, with racial marginalization added to the model, it explains 12.9% ($R^2 = .13, R^2 \text{ change} = .04$) of the variance of mental health problems. In the third and last step of the analysis the interaction variables were added to test for moderations with $F(11, 1495) = 59.56, p < .001$. These added variables explain 30.5% ($R^2 = .31, R^2 \text{ change} = .18$) of the variance of mental health problems (see Table 4) and therefore the third step resulted in the best model.

Even though the added moderator variables resulted in a positive significant model, there is still some nuance. The analysis showed that only teacher and parental support are significantly related, meaning that only teacher and parental support and not peer support had a moderating effect on the relationship between racial marginalization and mental health problems. However, only parental support had a negative effect on the relationship between racial marginalization and mental health problems, e.g., the more parental support, the less mental health problems there are. Teacher support had a positive effect on this relationship, meaning that the more teacher support there is, the more mental health problems are reported when experiencing racial marginalization.

Table 4

Multiple regression analysis with Racial Marginalization, Peer Support, Teacher Support and Parental Support on Mental Health Problems

Variable	Model 1				Model 2				Model 3			
	Adjusted	B	<i>t</i>	<i>p</i>	Adjusted	B	<i>t</i>	<i>p</i>	Adjusted	B	<i>t</i>	<i>p</i>
	0.09				0.13				0.30			
Constant		10.84	7.79	<.001		9.08	6.59	<.001		17.52	11.91	<.001
Age		.48	5.52	<.001		.38	4.78	<.001		.23	3.14	.002
SES		-.10	-.49	.622		-.03	-.17	.869		.12	.70	.486
Sex		2.93	10.90	<.001		2.97	11.30	<.001		2.47	10.18	<.001
EL		.02	.13	.896		.15	1.18	.237		.15	1.30	.194
RM						1.49	8.25	<.001		.68	3.96	<.001
PS										-.17	-1.78	.075
TS										.57	4.23	<.001
PaS										-.91	-8.77	<.001
PS x RM										-.03	-1.63	.103
TS x RM										.14	6.62	<.001
PaS x RM										-.04	-2.68	.008

Note. EL = Education level; RM = Racial marginalization; PS = Peer support; TS = Teacher support; PaS = Parental support; *N* = 1507 for all variables.

Additional analysis

Because of the non-significance of the moderator peer support, an additional analysis was conducted to see whether the third model without peer support as a moderator affects the strengths of teacher and parental support. This analysis showed that a model without peer support, $F(9, 1497) = 71.55, p < .001, R^2 = .30$ differs but little from the model with peer support added, with $F(11, 1495) = 59.56, p < .001, R^2 = .30$.

However, the analysis also showed that leaving peer support out has little effect on the effects of teacher and parental support (see Table 5).

Table 5

Overview of Model 3 with and without Peer Support as a moderator variable

Variable	With				Without			
	Adjusted R ²	B	<i>t</i>	<i>p</i>	Adjusted R ²	B	<i>t</i>	<i>p</i>
	.30				.30			
RM		0.68	3.96	<.001		0.70	4.07	<.001
Teacher support		.57	4.23	<.001		.56	4.22	<.001
Parental support		-.91	-8.77	<.001		-.98	-10.11	<.001
TS x RM		.14	6.62	<.001		.14	6.47	<.001
PaS x RM		-.04	-2.68	.008		-.05	-3.50	<.001

Note. RM = Racial marginalization; TS = Teacher support; PaS = Parental support; $N = 1507$ for all variables.

Discussion

The main aim of the present study is to understand whether the effects of racial marginalization on mental health problems for adolescents with a non-Dutch background are influenced by teacher, peer and parental support.

The results of this study show that racial marginalization does affect the mental health of adolescents with a non-Dutch background negatively. Teacher support is found to have a significant positive moderating effect, meaning that the more teacher support there is, the more racial marginalization affects mental health problems. This effect is not in line with the hypothesis and will be discussed later on. Peer support is not found to have a significant moderating effect and will be discussed later on as well. Parental support is found to have a significant negative moderating effect, meaning that the more parental support the less racial marginalization affects mental health problems. So parental support is found to be the only protective factor.

It was hypothesized that racial marginalization affects mental health problems for adolescents with a non-Dutch background. The analysis shows that this is indeed the case, even though racial marginalization was not experienced by many participants. However, the results show that the more racial marginalization adolescents experience, the more mental health problems they encounter. This is in line with previous research (Baiden et al., 2022; Brody et al., 2021; Mowat, 2015; Polos et al., 2022) that stated the effects of experiencing racial marginalization on mental health problems.

A further hypothesis was that parental support would be a protective factor against the effect of racial marginalization on mental health problems. The analysis shows that this is indeed the case; the more parental support adolescents experience, the weaker the effects of racial marginalization on mental health problems are. So, more parental support is associated with both less racial marginalization as well as less mental health problems. This is in line with previous studies that stated that parents play a protective role when it comes to racial marginalization (Brody et al., 2021; Trent et al., 2019) because of better strategies for enhancing their children's emotion regulation and coping (Trent et al., 2019). This also relates to the literature about resilience that states that strong and warm relationships in a child's support system makes the child more resilient against the negative effects of racial marginalization (Condly, 2006). My analysis also shows that parental support is mostly reported by boys and declines for both boys and girls when maturing, while mental health problems increase with age and are more present among girls.

Another hypothesized protective factor against the effects of racial marginalization on mental health was teacher support. The analysis shows that this was not the case. Strikingly, the results show that the more teacher support there is, the more mental health problems adolescents experience when experiencing racial marginalization. In other words: more teacher support is associated with both more racial marginalization as well as more mental health problems, or vice versa. A possible explanation for this could be a lack of traits, as mentioned in the introduction. These prosocial traits, such as an easier temperament, could possibly foster more and stronger close relationships with peers and adults, skilled to have close relationships with peers and adults resulting in resilience against the effects of racial marginalization (Condly, 2006). So, even though the participants experience teacher support it would still be possible to not be resilient against the effects of racial marginalization because the participants do not have those traits.

What also could be possible is that adolescents who experience racial marginalization and mental health problems seek more support from their teachers or teachers are drawn more towards pupils in need. Besides, the results showed that less parental support is associated with more teacher support which is in line with the literature that states that teacher support can be an independent protective factor, even when there is little to no support from parents or peers (Butler et al., 2022). However, this does not explain why teacher support reinforces the relationship between more racial marginalization and more mental health problems. This will be discussed more in the limitations section.

Another alternative explanation would be the phenomenon called color-blindness many teachers practice, where they believe and well-intendedly pretend as if race does not exist in order to treat everyone equally. However, this approach can inadvertently lead to pupils feeling culturally misunderstood (De Leersnyder et al., 2021). This color-blindness can also result in a decreased sensitivity to racism (Plaut et al., 2018). Often, teachers are unaware of their biases towards individuals with a different cultural background (Pagán, 2022).

The findings with regard to peer support are somewhat complicated to interpret: on the one hand, peer support does not have a significant effect on the relation between racial marginalization and mental health problems. On the other hand, more peer support is associated with less racial marginalization and less mental health problems or vice versa. In sum, there is a relation between peer support and racial marginalization and mental health problems, but the effect of peer support is not as strong as it is with parental and teacher support. An explanation for this could be that during adolescence there is more awareness of

ethnic-racial group membership and an increased segregation of peer groups (Niwa et al., 2014). This increased segregation could explain why peer support does not compensate for the effect of racial marginalization on mental health.

Besides the results on the hypotheses, another meaningful result is found as well. The results showed that the older you are, the more racial marginalization you experience. Experiencing racial marginalization more when getting older is problematic, because it shapes the lifecourse. The older you become, the more the experiences with racism pile up and so the more damage it can do (Gee et al., 2019).

Limitations

This study has considerable strengths. First, data from the HBSC study was used. The HBSC is a reliable and valid study with a large sample, repetitively conducted in several countries every four years. Another strength of this study is that little research has been conducted before about the present effects of racial marginalization on adolescent mental health problems in the Netherlands. In sum, other HBSC-data could be used to study trends in racial marginalization and mental health problems. However, the HBSC study is cross-sectional which means there has only been one measurement moment. So, for the results to be more reliable in terms of causality, it would be better to do longitudinal research. Another limitation that could have influenced the results is the newly constructed variable of mental health problems. Perhaps the results would have been different if this variable was made following the same guidelines as other variables from the HBSC study. Also, the HBSC-survey was not specifically made to measure racial marginalization and mental health problems the way my study did, so a more nuanced research method with not only self-report would have been more accurate. Perhaps then the contradictory results of teacher and peer support would be different as well. Furthermore, SES was measured with the Family Affluence Scale which measures possessions rather than the common measures of SES which are education, income and occupation (Baker, 2014). To have more reliable results, future research should include the common measures of SES rather than the FAS. Last, my study did not differentiate between different non-Dutch backgrounds and religions. Doing this could have led to more elaborate results.

Implications

This study provides evidence that racial marginalization does affect adolescent mental health problems. Furthermore, this study highlights the crucial role parents play in

diminishing this effect, while teacher support may aggravate this effect. The absence of significant effects from peer support raises the need for further research about the underlying reasons for this and the factors that do contribute to buffering peer relationships. Overall, these new insights contribute to the scientific knowledge about racial marginalization and mental health problems of adolescents in The Netherlands.

To implement these results, it is important to enhance adolescents' and teachers' knowledge about this problem by, for example, hosting lectures at high schools or organizing other events to teach about cultural sensitivity and raise more awareness. Future research can provide valuable insights when investigating more how teacher-student relationships can positively influence the mental health of adolescents, especially when also experiencing racial marginalization and facing associated challenges. By doing so, more protection against the detrimental effects of racial marginalization can be achieved, ultimately reducing the associated mental health problems. In addition, it is important for future research to delve deeper into the role of relationships with parents and which aspects of those relationships foster the reduction of racial marginalization and mental health problems. This can be done by examining (culturally) different parenting styles. In sum, future research should focus more on the impact of teachers, the role peers could play and the aspects of parental support that are most beneficial when it comes to racial marginalization and mental health problems. By prioritizing these roles, more insight into mental health problems and racial marginalization will be gained. These insights could contribute to useful interventions and policies to reduce racial marginalization and the associated unwanted mental health problems.

Literature

- Baiden, P., LaBrenz, C. A., Onyeaka, H. K., Muoghalu, C., Nicholas, J. K., Spoor, S. P., Bock, E., & Taliaferro, L. A. (2022). Perceived racial discrimination and suicidal behaviors among racial and ethnic minority adolescents in the United States: Findings from the 2021 adolescent behaviors and experiences survey. *Psychiatry Research*, *317*, 114877. <https://doi.org/10.1016/j.psychres.2022.114877>
- Baker, E. A. (2014). Socioeconomic Status, Definition. *The Wiley Blackwell Encyclopedia of Health, Illness, Behavior, and Society*, 2210–2214. <https://doi.org/10.1002/9781118410868.wbehibs395>
- Boer, M., Dorselaer, S. van, Looze, M. de, Roos, S. de, Brons, H., Eijnden, R. van den, Monshouwer, K., Huijnk, W., Bogt, T. ter, Vollebergh, W., & Stevens, G. (2022). *HBSC 2021 Gezondheid en welzijn van jongeren in Nederland*. Geraadpleegd op 22 januari 2023, van <https://hbcsnederland.nl/publicaties/rapporten/>
- Brody, G. H., Yu, T., Chen, E., Miller, G. E., Barton, A. W., & Kogan, S. M. (2021). Family-centered prevention effects on the association between racial discrimination and mental health in Black adolescents. *JAMA Network Open*, *4*(3), e211964. <https://doi.org/10.1001/jamanetworkopen.2021.1964>
- Bronfenbrenner, U. (1992). *Ecological systems theory*: Jessica Kingsley Publishers.
- Butler, N., Quigg, Z., Bates, R., Jones, L., Ashworth, E., Gowland, S., & Jones, M. (2022). The contributing role of family, school, and peer supportive relationships in protecting the mental wellbeing of children and adolescents. *School Mental Health*, *14*(3), 776–788. <https://doi.org/10.1007/s12310-022-09502-9>
- Chancy, D. F., Witherspoon, D. P., Wei, W., Glover, B., Hughes, D. L., & Way, N. (2022). The associations between contextual and cultural stressors, internalizing symptoms, and social support. *Journal of Research on Adolescence*, *32*(2), 650–665. <https://doi.org/10.1111/jora.12761>

- Condly, S. J. (2006). Resilience in children. *Urban Education, 41*(3), 211–236.
<https://doi.org/10.1177/0042085906287902>
- Cristini, F., Scacchi, L., Perkins, D. D., Santinello, M., & Vieno, A. (2011). The influence of discrimination on immigrant adolescents' depressive symptoms: What buffers its detrimental effects? *Psychosocial Intervention, 20*(3), 243–253.
<https://doi.org/10.5093/in2011v20n3a2>
- De Bruijn, Y., Amoueus, C., Emmen, R. A. G., & Mesman, J. (2020). Interethnic prejudice against Muslims among White Dutch children. *Journal of Cross-Cultural Psychology, 51*(3–4), 203–221. <https://doi.org/10.1177/0022022120908346>
- De Leersnyder, J., Gündemir, S., & Agirdag, O. (2021). Diversity approaches matter in international classrooms: how a multicultural approach buffers against cultural misunderstandings and encourages inclusion and psychological safety. *Studies in Higher Education, 47*(9), 1903–1920.
<https://doi.org/10.1080/03075079.2021.1983534>
- Dudovitz, R., Biely, C., Barnert, E., Coker, T., Guerrero, A., Jackson, N., Schickedanz, A., Szilagyi, P., Iyer, S., & Chung, P. (2021). Association between school racial/ethnic composition during adolescence and adult health. *Social Science & Medicine, 272*, 113719. <https://doi.org/10.1016/j.socscimed.2021.113719>
- Gale, A. (2020). Examining Black adolescents' perceptions of in-school racial discrimination: The role of teacher support on academic outcomes. *Children and Youth Services Review, 116*, 105173.
<https://doi.org/10.1016/j.chilyouth.2020.105173>
- Gee, G. C., Hing, A. K., Mohammed, S. A., Tabor, D. C., & Williams, D. R. (2019). Racism and the Life Course: Taking Time Seriously. *American Journal of Public Health, 109*(S1), S43–S47. <https://doi.org/10.2105/ajph.2018.304766>

- Greathouse-Amador, L. M., de la Fuente-Laudó, A. J., & Preciado-Lloyd, P. N. (2021). Racism and children: Reflections for a more just society. *Revista Criminalidad*, 63(2), 99–113. <https://www-scopus-com.proxy.library.uu.nl/record/display.uri?eid=2-s2.0-85127159839&origin=resultslist&sort=plf-f&src=s&st1=racism+AND+school+AND+mental+health&nlo=&nlr=&nls=&sid=0c63c832996aed14ce474f513333a171&sot=b&sdt=b&sl=50&s=TITLE-ABS-KEY%28racism+AND+school+AND+mental+health%29&relpos=102&citeCnt=0&searchTerm=>
- Gruber, J. (2022). The “Zwarte piet” debate in Belgium and the Netherlands – searching for racial reconciliation in post/colonial Europe? Theologizing about social conflict and cohesion at the intersection of race and religion. *Louvain Studies*, 45(1), 34-59. <https://doi.org/10.2143/LS.45.1.3290306>
- Juang, L., Ittel, A., Hoferichter, F., & Miriam Gallarin, M. (2016). Perceived racial/ethnic discrimination and adjustment among ethnically diverse college students: Family and peer support as protective factors. *Journal of College Student Development*, 57(4), 380–394. <https://doi.org/10.1353/csd.2016.0048>
- Keane, K., & Evans, R. R. (2022). The potential for teacher-student relationships and the whole school, whole community, whole child model to mitigate adverse childhood experiences. *Journal of School Health*, 92(5), 504–513. <https://doi.org/10.1111/josh.13154>
- Kilicaslan, F., Beyazgul, B., Kuzan, R., Karadag, D., Koruk, F., & Koruk, I. (2022). The prevalence of peer bullying and psychiatric symptoms among high school students in southeast Turkey. *Nordic Journal of Psychiatry*, 77(1), 83–90. <https://doi.org/10.1080/08039488.2022.2134450>

- Malone, C. M., Wycoff, K., & Turner, E. A. (2021). Applying a MTSS framework to address racism and promote mental health for racial/ethnic minoritized youth. *Psychology in the Schools, 59*(12), 2438–2452. <https://doi.org/10.1002/pits.22606>
- Messiou, K. (2012). Collaborating with children in exploring marginalisation: An approach to inclusive education. *International Journal of Inclusive Education, 16*(12), 1311–1322. <https://doi.org/10.1080/13603116.2011.572188>
- Moses, T. (2010). Being treated differently: Stigma experiences with family, peers, and school staff among adolescents with mental health disorders. *Social Science & Medicine, 70*(7), 985–993. <https://doi.org/10.1016/j.socscimed.2009.12.022>
- Mowat, J. G. (2015). Towards a new conceptualisation of marginalisation. *European Educational Research Journal, 14*(5), 454–476. <https://doi.org/10.1177/1474904115589864>
- Nagata, J. M. (2020). New findings from the health behaviour in school-aged children (HBSC) survey: Social media, social determinants, and mental health. *Journal of Adolescent Health, 66*(6). <https://doi.org/10.1016/j.jadohealth.2020.03.024>
- Niwa, E. Y., Way, N., & Hughes, D. (2014). Trajectories of Ethnic-Racial Discrimination Among Ethnically Diverse Early Adolescents: Associations With Psychological and Social Adjustment. *Child Development, n/a*. <https://doi.org/10.1111/cdev.12310>
- Pagán, O. (2022). A Multilevel Framework of Racism as a Barrier to Teachers' Implementation of Culturally Relevant Pedagogy. *AERA Open, 8*, 233285842211061. <https://doi.org/10.1177/23328584221106193>
- Plaut, V. C., Thomas, K. M., Hurd, K., & Romano, C. A. (2018). Do Color Blindness and Multiculturalism Remedy or Foster Discrimination and Racism? *Current Directions in Psychological Science, 27*(3), 200–206. <https://doi.org/10.1177/0963721418766068>

- Polos, J. A., Koning, S. M., Hargrove, T. W., Kershaw, K. N., & McDade, T. W. (2022). Structural racism in school contexts and adolescent depression: Development of new indices for the National Longitudinal Study of Adolescent to Adult Health and beyond. *SSM - Population Health, 19*. <https://doi.org/10.1016/j.ssmph.2022.101237>
- Suldo, S. M., Gelley, C. D., Roth, R. A., & Bateman, L. P. (2015). Influence of peer social experiences on positive and negative indicators of mental health among high school students. *Psychology in the Schools, 52*(5), 431–446. <https://doi.org/10.1002/pits.21834>
- Trent, M., Dooley, D. G., Dougé, J., Cavanaugh, R. M., Lacroix, A. E., Fanburg, J., Rahmandar, M. H., Hornberger, L. L., Schneider, M. B., Yen, S., Chilton, L. A., Green, A. E., Dilley, K. J., Gutierrez, J. R., Duffee, J. H., Keane, V. A., Krugman, S. D., McKelvey, C. D., Linton, J. M., . . . Wallace, S. B. (2019). The impact of racism on child and adolescent health. *Pediatrics, 144*(2). <https://doi.org/10.1542/peds.2019-1765>
- Weiner, M. F. (2014). The ideologically colonized metropole: Dutch racism and racist denial. *Sociology Compass, 8*(6), 731–744. <https://doi.org/10.1111/soc4.12163>
- Wenzing, J. M. C., Gharaei, N., Demir, Z., & Schachner, M. K. (2021). Do parental and peer support protect adjustment in the face of ethnic discrimination? A comparison between refugee youth and youth of immigrant descent. *International Journal of Environmental Research and Public Health, 18*(22), 12016. <https://doi.org/10.3390/ijerph182212016>

Appendix 1: Interdisciplinarity

In this study, the central research question is whether peer, parental and teacher support are protective factors against the negative effects of racial marginalization on adolescent mental health. The independent variable, adolescent mental health, will be studied through several scientific disciplines such as psychology, social psychology, sociology and pedagogics. This can be explained by the following: racial marginalization is conceptualized from a sociological perspective and hypothesized to influence mental health, which is a psychological variable. Because mental health is hypothesized to be influenced by a societal factor, the psychological perspective is more of a social psychological perspective which can be explained by the theory of Bronfenbrenner (1992). Bronfenbrenner states how different environments influence individual development. Within these different environments parents, peers and teachers play a role in adolescent life which brings in the pedagogical discipline as well.

Using Sameroff's model, the variables of the study can be located in the specific spheres. Racial marginalization is located in society, parental, teacher and peer support are located in family and group that all affect mental health which is a personal factor but also the explained condition. In the model, these contexts interact with each other and the support factors even reduce the problem.

To conclude, this study is interdisciplinary because of the different variables that contribute to understanding the problem. It is important to look at mental health from these different scientific disciplines because mental health simply is influenced by many factors from all the disciplines but also influences other factors in life itself.

Appendix 2: Contract data use

Utrecht, 2022

This letter constitutes formal confirmation of the fact that the data from the Utrecht University Youth Studies (2022-2023) have been made available to Merel Bell of Utrecht University.

These data will not be made available to others, and the data may be used only for analysis and reporting on topics for the thesis, about which agreement has been reached with Birol Akkus.

Merel Bell will receive access to the data from the dataset in order to answer the following research questions within the framework of the thesis: Research question: “Do teacher, peer and parental support have a moderating effect on the relation between racial marginalization and adolescent mental health?”

The following variables will be used:

Dependent variable: Adolescent mental health (questions 52 and 56)

Independent variables: racial marginalization (questions 89 and 90), teacher support (question 68), parental support (questions 37 and 38), peer support (43, 60 and 68).

Other variables: age (question 1), gender (question 2), country of birth (question 4), parental country of birth (question 5).

No report based on the data from the project entitled HBSC will be made public, unless permission has been obtained in advance from the Project Coordinator for the HBSC.

After the expiration of this contract, dated 01-07-2023, Merel Bell shall delete the HBSC data.

Dates and signature:

26-01-2023



Names of student:

Merel Elisabeth Bell

Name of project coordinator: