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Coping with loneliness through music listening as a young adult: a correlational study

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Abstract

Loneliness has proven to be a problem for people all over the world, at all ages. Although the focus is often on adolescents and the elderly, studies have shown that young adults experience high levels of loneliness, especially in the last two years with restrictions due to the covid-19 pandemic. To cope with loneliness, people have used different ways, and listening to music is one of them. The present study investigated how young adults use music listening to cope with their loneliness. Data were collected for 110 participants through an anonymous online survey shared through social media. The questionnaire consisted of two instruments: 3-items UCLA Loneliness Scale and Musical Coping Scale. In addition to these instruments, the survey consisted of questions regarding routines for listening to music, musical preferences, and its' connections to the covid-19 pandemic. The data analysis was done via correlations and multiple linear regression. There was a positive correlation between loneliness and avoidance, as well as with emotion-oriented coping. Surprisingly, problem-oriented coping and loneliness did not correlate at all in the present study, which is being discussed. Overall, the results suggest that avoidance is commonly used to cope with loneliness through music listening. Future studies are encouraged to examine a larger number of coping strategies for the same issue and for the same age.

Keywords: coping, loneliness, music listening, young adults

Author Note

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In 2021, 77% of young adults between the ages of 18 and 29 in Sweden stated that they have felt lonely in the past year (Novus, 2021). Since the beginning of the covid-19 pandemic in 2020, the Swedish population has had to comply with the Swedish Public Health Agency's recommendations and restrictions to prevent the virus from spreading. The most comprehensive recommendation has been that of social distancing- and isolation. Loneliness is associated with feelings of social isolation and may occur in all types of people of all different ages (Baretto et al., 2021). Studies carried out during the pandemic regarding social distancing- and isolation have shown that it affects people negatively, of which loneliness is one of the problems (Groarke et al., 2020; Hwang et al., 2020). Even though social distancing is not the same as loneliness it can have negative effects on people's health since they in some ways follows the same pathway (Hwang et al., 2020).

Not only Sweden has reported young adults feeling lonely during the past two years. A study in the U.S conducted in 2021 had surprising results showing 61% of young adults in ages 18 to 25 reporting feelings of loneliness "frequently" or "almost all the time or all the time" (Harvard, 2021). Also, globally it was reported the same year (2021) that 33% of adults experience loneliness (Statista, 2021).

Loneliness is distressful, and to handle stress, different coping strategies are commonly used (Folkman & Lazarus, 1980). One way of coping with stress can be to listen to music (Moore & Schultz, 1983). Perhaps it may be that listening to music also is a way for young adults to cope with loneliness, not least during a pandemic. In times of covid-19, the opportunities to go to a concert have been strictly limited, but the music is still with us. A study conducted by the International Federation of the Phonographic Industry (IFPI, 2021), which aims to investigate how people around the world use and engage with music shows that the average time spent listening to music for people in general per week is 18.4 hours. The most common ways of listening to music in the past year were through audio streaming, live streams, and radio. However, audio streaming and radio have been the most used ways of listening to music even before the pandemic.

Loneliness

Loneliness is something that all people can experience and feel. It may not always be objective but can nevertheless be experienced on the inside. When it comes to loneliness from a research point of view, much has been done regarding adolescents and the elderly but is less

researched with young adults. However, statistics show that loneliness is experienced by people of all ages (Baretto et al., 2021).

The risk of negative consequences regarding loneliness is high and it can affect people both physically and mentally. In addition to the fact that loneliness is generally linked to both morbidity and mortality, loneliness can affect the body by e.g., increasing the risk of high HDL cholesterol levels and systolic blood pressure (Hawkley & Cacioppo, 2010). The potential consequences are many and on a wide range of different mental health risks such as depressive symptoms (Cacioppo, et al., 2006; Segrin, 1999), suicide (Goldsmith et al., 2002), stress, anxiety, anger, and low self-esteem (Cacioppo et al., 2006).

Studies from the last two years show that young adults experience high levels of loneliness, which applies to people aged 30 and under (Barreto et al., 2021; Hawkley et al., 2022). Loneliness has also been shown to increase after the age of 75 and peak at 80 (Luhmann & Hawkley, 2016). Studies have previously shown that the elderly are the loneliest (Luhmann & Hawkley, 2016), although others have shown that middle-aged people are lonelier than the elderly (Barreto et al., 2021). According to Hawkley et al. (2022), it is not age per se that affects the levels of loneliness we experience, but it is the life events that usually occur at certain ages.

Other factors for loneliness

In addition to age, other factors can say something about people's levels of loneliness. Partnerships in the form of a romantic relationship have proven to be something that can reduce people's feelings of loneliness. For example, partners who live together experience less loneliness than singles living without a partner (Luhmann & Hawkley, 2016). People who are separated or divorced have shown to feel lonelier than those who are not (Hawkley et al., 2022) and those under 30 who had partners reported being less lonely than singles of the same age (Luhmann & Hawkley, 2016).

Gender can say something about loneliness, although studies have shown fragmented results. In some cases, men are lonelier than women (Barreto et al., 2021), and in other cases, women have reported being lonelier than men (Luhmann & Hawkley, 2016).

Coping strategies

The concept of coping was introduced by Lazarus in the 1980s and together with colleagues, he developed the instrument *Ways of coping*, to study the coping process (Lazarus & Folkman, 1980). Coping is used as strategies for handling stressful situations. The original scale includes the two most general types of coping: problem-oriented coping and emotion-oriented coping.

The problem-focused approach aims to solve the problem that is perceived as stressful (Carver et al., 1989). The solutions involve figuring out suggestions for how a problem can be solved, comparing the pros and cons of the various suggestions, and planning step by step on how the problem can be solved (Baker & Berenbaum, 2007). Compared to the problem-oriented way of coping, the emotion-oriented way of coping tries to reduce the stress linked to a certain stressful situation (Carver et al., 1989). According to Baker and Berenbaum (2007), venting emotions, seeking social support, or denying the problem are ways to handle the problems emotionally. According to Baker and Berenbaum (2007), emotion-oriented coping and avoidance have similar strategies. However, they do not function in exactly the same way and hence they are kept separate. Several strategies for emotion-oriented coping have been shown to be maladaptive (Carver et al., 1989). By looking at emotion-oriented as a way of dealing with a problem actively rather than by avoiding the problem, avoidance coping can play its role.

Avoidance coping is about addressing denial or minimizing the importance of the problem. It's about avoiding dealing with the problem. Emotion-focused way of coping tries to reduce the stress linked to a certain stressful situation (Holahan & Moos, 1987; Holahan et al., 2005).

Coping with loneliness

To deal with loneliness, people have used several strategies. University students have e.g., used social media to communicate with others. They seek a lot of social support but avoid talking about their feelings to loved ones so that they do not have to worry about their feelings of loneliness (Vasileiou et al., 2019). The elderly have used acceptance, especially in situations that are precisely influenced by the age they are in and the things that can lead to loneliness at that certain age (e.g., widowhood).

Problem-oriented coping, emotion-oriented coping, and avoidance have shown to be common ways of dealing with loneliness. Problem-focused is one of the overall most common and has according to previous research been used by 73% of the participants (Vasileiou et al., 2019). Li et al. (2019) argue that using less emotion-oriented coping and instead problem-oriented coping could make people feel less lonely.

By trying to express their feelings to others, crying and using creative thinking, university students have tried to reduce their feelings of loneliness. Listening to music has helped them feel more connected with their emotions, as well as helped keep themselves occupied and thus avoid thinking about feelings of loneliness (Vasileiou et al., 2019).

Music listening

Music has shown to bring people together (Schäfer & Sedlmeier, 2009) and to help people manage their moods. Reasons for listening to music are many and different depending on the individual. Listening to our favourite music has shown to put us in a good mood, help us tune down and give us energy (Lonsdale & North, 2011). Beyond this, music may also be of great importance as it can help people to express their identity and values (Schäfer & Sedlmeier, 2009). Listening to our favorite music can help us with creativity, give inspiration and create alternative thinking. Music can be seen as a source of information, as it can provide us with information about e.g., politics, world events and emotions. Also, it is reported to be a way of creating imaginary worlds and an expression of freedom (Schäfer & Sedlmeier, 2009).

Genres and their functions

According to the study conducted by IFPI (2021), 63% of the participants reported spending time trying to find new music during the pandemic. This indicates that people are interested in broadening their preferences when it comes to music. The function of music (i.e., what people want to get out of it) is closely related to the music preference the person has. People like different music genres for different reasons and use them in different ways. Electronic music has been shown to put people in a good mood, rock music is liked because the listeners state that it expresses their identity and values and when it comes to rap, listeners perceive improvement in understanding their feelings and thoughts. Pop music has shown to be a way of meeting other people, but mood and emotional functions have no important effect on the listeners, while genres such as folk and country also puts the listeners in a good mood but as with rap, it helps to understand ones' thoughts and feelings (Schäfer & Sedlmeier, 2009).

Music listening as coping

Music listening has been found to work as an emotion-oriented way of coping in adolescents, especially when it comes to girls. This is since music listening was found to be used to handle life stresses and to regulate emotions (Claes & Miranda, 2009). Regarding problem-oriented coping, listening to music may help to consider different solutions for problems that adolescents find stressful (e.g., school). Also, it was found to release boredom within this age group, and thereby made it easier for adolescents to get things done such as homework (Saarikallio & Erkkilä, 2007).

Not only do adolescents use music listening to handle stressful situations such as school and homework, but a study of college students also found music listening being an effective strategy to handle stress (Vidas et al., 2022). However, music listening was found to

be used for different reasons since it also was found that adolescents use it to avoid thinking about stressful things, such as homework (Saarikallio & Erkkilä, 2007).

During the covid-19 pandemic, music listening was one of the most effective ways to cope with the stress which arose from covid-19 in college students (Vidas et al., 2021). It was found to be just as effective as e.g., exercising or changing location. In a study made by Krause et al. (2021), it has also been found that listening to music has positively impacted university students' life satisfaction in the early stages of the covid-19 pandemic. Other media use such as watching TV or movies was negatively related to life satisfaction. This suggests potential benefits of listening to music in periods of social isolation that might occur, not only in times of a pandemic.

Coping with loneliness through music listening

Previous research in the field of coping with loneliness through music listening has mostly had its focused on adolescents and the elderly. The present study will therefore help to fill a gap in research by examining young adults. Schäfer and Eerola (2020) showed that company and isolation were two of the social motives why people listen to music, in comparison with using other media (such as watching TV). These two factors played a major role in the choice of listening to music instead. Levels of loneliness have been shown to decrease when people listen to the music of their choice (Schäfer et al., 2020). Listening to music has e.g., proven to play a great role in the well-being of adolescents. Thus, loneliness is one such thing that they deal with by listening to music (or watching TV) (Moore & Schultz, 1983).

During the covid-19 pandemic, people generally spent more time on music-related activities than before (Ferreri et al., 2021). Listening to music has been shown to affect mood for the better (Schäfer et al., 2020), which has been important for people in the past years to feel happy (Ferreri et al., 2021). Since company and isolation have proven to be reasons for turning to music (Schäfer & Eerola, 2020, many have turned to e.g., virtual concerts over the past two years to address the lack of social interaction (Ferreri et al., 2021).

An important part of music is its ability to evoke nostalgic feelings. Music has a way of reminding people of e.g., relationships or partners and hence it can be used to deal with the feeling of loneliness that may arise (Schäfer & Eerola, 2020).

The area of previous research is limited as there is a greater focus on the use of music listening to cope with e.g., depressive feelings or stress.

Present study

In the present study, I investigate the relations between young adults' perceived loneliness, and how they cope with it by listening to music. I formulated a research question to explore this: How do young adults use music listening to cope with loneliness?

The aim is to contribute to an understanding of the importance of listening to music for this target group in their handling of loneliness. Thus, it fills a gap in the age group selected. It helps to draw attention to the issue of loneliness in this age group and in what way listening to music can be a way of dealing with it. Also, the present study shows how people rate their experience of loneliness in relation to the covid-19 pandemic, and if it has affected their routines regarding listening to music.

Method

Participants

I used Lakens (2022) recommendations for determining the sample size. The recommendations opted against using a power calculation, as the expected effect size was unclear. I aimed for 160 participants since, according to Schönbrodt & Perugini (2013) this is the minimum size where correlations begin to stabilize. Due to time constraints, the survey was closed after 144 responses. Of these 144 participants, 4 who did not meet the age requirements were excluded, as well as 30 participants who did not complete the survey. The number of participants who completed the questionnaire was $N = 110$ (79% women; 76% aged 24-29). There were no missing values for the remaining sample.

The participants were recruited via social media (i.e., Facebook) and the platform Canvas (course participants that the supervisor had access to) through an anonymous link. The questionnaire was also spread via word of mouth.

Materials

3 items UCLA loneliness scale

The *3 items UCLA loneliness scale* is a revised version that was made in 1980 and is a standard measurement to assess loneliness (Russell, 1996). Although the revised version only consists of 3 items, it has previously been shown to have very high internal consistency and validity, and strong reliability (Russell, 1996), and for the present study, $\alpha = 0.76$. The three items capture different ways in which young adults may experience loneliness (Russell, 1996), as the experience of loneliness does not only have to be based on the social isolation that occurred during the covid-19 pandemic.

The scale measures the individual's subjective experiences of loneliness and is the most widely used loneliness scale. The three different statements concerning how often the respondents feel that they lack companionship, feel left out, and experience social isolation.

The statements were assessed using a three-point Likert scale (1= hardly ever, 3 = often). The original UCLA loneliness scale including 20 items was created in 1978 by Ferguson, Peplau and Russell (Russell, 1996). A shortened scale was used in the present study to make the complete survey short and concise, to increase the chance of a high number of participants.

Musical Coping Scale (MCS)

I used the *Musical Coping Scale*, created by Miranda (2021) to assess coping through music listening. The scale measures three different types of coping: problem-oriented coping, emotional-oriented coping and avoidance coping. For each coping strategy, there are 5 items. Since the scale is used to investigate coping with stress through music listening, two questions assessing one of the three coping styles each were chosen from the original scale. This is because the three other questions per coping strategy were not suitable for loneliness. The selection of which statements were included was based on whether they could be applied to feelings of loneliness. For example, the statement "I listen to music to avoid people who stress me out" was removed, since it was not possible to associate it with loneliness. The internal reliability for the shortened scale used in the present study, $\alpha = 0.37$.

For each statement, the respondents indicated how often they listen to music to manage loneliness in their everyday life (instead of managing stress in their everyday life). Statements such as "When I feel lonely, I listen to music to avoid thinking about my personal problems" were assessed on a five-point Likert scale (1 = never, 5 = very often).

Additional items

We chose to include other items in the present study to be able to say something more about the participants and their situation. The purpose of these questions was thus to provide descriptive information or contribute to exploratory analyses, which mainly did not concern the research question itself. The participants got to answer a question whether they think the lyrics, or the music is most important when they listen to music. Items concerning music listening routines, musical preferences and whether the respondents experience that they listen to music more, less or the same as before the covid-19 pandemic was thus added. The musical preferences were answered by first checking their favorite genre on a list of different genres, and then checking three different genres that the person has listened to in the past year. Also, the respondents got to answer how many hours they approximately listen to music per day. An extra item was included asking whether the participants feel more, less or equally lonely since the beginning of the covid-19 pandemic (1 = less, 3 = more).

Study design

The present study has a correlative design to investigate the relationships between loneliness and coping strategies, which are used through listening to music. The relationships concern young adults between the ages of 18-29.

Procedure

The complete survey was created in Qualtrics. The questionnaire was conducted in English, a second language for many of the participants. However, since the study does not aim to investigate Swedish young adults specifically a decision was made not to translate the questions. Since the questionnaire is sent out in Sweden, there is no exclusion from this against the young adults who live in Sweden but who do not have basic knowledge of the Swedish language. The general interest in the present study is in the young adults, so whether the questionnaire is conducted in Swedish is not relevant to the study.

When the participants were recruited, they were informed about the desired age range for the present study; young adults between the ages of 18-29. However, there was an opportunity for those who did not find themselves within the specified age range to still state their age.

The participants were told that the purpose of the study was to examine loneliness in young adults, their routines of listening to music, and how they use music listening to handle their loneliness. All participants were informed about anonymity and that their responses and personal information could not be traced back to them. They were also informed about where they could find the results of the study. All respondents had to agree to the informed consent to be able to continue answering the questionnaire, and thereby also confirm that they were 18 years of age or older.

The questionnaire began with questions about the respondent's routines of listening to music, and its musical preferences (music genres), followed by questions about loneliness, and finally about the situations in which music listening was used to cope with loneliness. Before the survey was completed, the respondent was allowed to answer questions regarding age and gender identity (not mandatory). The decision to include questions regarding age and gender was based on the possibility of being able to say something about the respondents. The questions were placed last in the questionnaire to reduce the risk of loss as they can be perceived as sensitive. The remaining questions were marked mandatory to reduce the risk of someone unintentionally missing to answer a question. The survey was estimated to take approximately 5 minutes to complete.

The questions regarding coping with loneliness through music listening were randomized to reduce the risk of order effects. Overall, it was considered that there was no

sufficient threat for confounds regarding the order in which the questions were placed in the survey.

Ethical considerations

The present study was conducted in line with the ethical guidelines provided by the Swedish Ethical Review Authority. Prior to the study, potential risks were considered with the study. Participants were informed before taking the survey that there was no risk by participating. Also, the participants were informed of their right to abort their participation at any time without stating a reason or that it would have negative consequences.

Analysis

All statistics were performed using the program SPSS Statistics v.28 and JASP version 0.16.1.0. All coping variables (MCS) were added as predictors with loneliness (3 items UCLA) as the outcome variable.

Results

First, the current distribution of normality for the main variables; loneliness, avoidance, emotion-oriented coping and problem-oriented coping were inspected. The distribution of loneliness showed some skew ($s = .48$, positive). A transformation of this variable was made but did not yield any significant change in the results. A decision was then made to keep the original variable. Descriptive statistics for all variables are presented in Table 1.

Table 1

Descriptive Statistics

	M	SD
Loneliness	5.16	1.61
Avoidance	5.60	1.99
Problem-oriented coping	7.58	1.67
Emotion-oriented coping	6.65	1.75
Hours listening	2.20	.85

Note. M = mean. *SD* = standard deviation. Hours listening = hours listening to music per day. More vs. Less = listening to music more, less or equal since the beginning of covid-19 pandemic. Lyrics vs. Music = lyrics or music being more important for the listener.

Results show that 65% of the participants perceived themselves listening to music for the same amount of time as before the covid-19 pandemic, while 24% reported listening more and 11% had been listening less to music than before. Regarding whether music or lyrics are the most important when listening to music, the majority (69%) agreed that music was the most important. For the remaining (31%), lyrics played a larger role than the instrumental part of the music.

Correlation testing

Correlations were then performed to examine the research question. For correlations, see Table 2.

Table 2

Pearson's correlations

	1	2	3	4	5	6
1. Loneliness	—					
2. Avoidance	.32***	—				
3. Problem-oriented coping	-.00	-.09	—			
4. Emotion-oriented coping	.31**	.50***	.09	—		
5. Hours listening	.09	.20*	.30**	.20	—	
6. More vs. Less	.06	.04	.03	.03	.11	—

Note. N = 110. * p < .05, ** p < .01, *** p < .001

Both avoidance and emotion-oriented coping are positively correlated with loneliness. A positive correlation was also found between avoidance and emotion-oriented coping. On the other hand, there was no correlation between problem-oriented coping and loneliness. These results should be interpreted with caution as there is any ambiguity regarding the stability of the correlations due to the number of participants.

In addition to the results particularly focused on answering the research question, a significant positive relationship was shown between problem-oriented coping and the number

of listening hours per day. The number of listening hours also had a significant positive relationship with avoidance. Changes in listening time since the beginning of covid-19 pandemic showed no correlation with perceived loneliness.

Finally, a linear regression was performed. Residuals were checked and normally distributed for the predictors. The regression model explains 11% of the variance in the participants' experiences of loneliness (Adj, $R^2 = 0.11$, F (3, 106) = 5.50), $p <.001$,). All predictor values and regression coefficients are presented in Table 3.

Table 3

Predictor Values and Coefficients for the Regression Model

	b	95% CI lb	95% CI hb	Std. Beta	p-value
(Intercept)	2.92	1.18	4.70		.001
Avoidance	.19	.02	.35	.23	.030
Problem-oriented coping	-.00	-.18	.17	-.00	.100
Emotion-oriented coping	.18	-.01	.37	.20	.060

Note. $N = 110$. The dependent variable is Loneliness. * $p < .05$, ** $p < .01$, *** $p < .001$

Avoidance was the strongest predictor of the coping strategies for Loneliness, followed by Emotion-oriented coping, which answers which coping strategies in the present study predict loneliness. However, this did not reach conventional levels of significance. Problem-oriented coping had no relation to Loneliness, which in the present study means that problem-oriented coping cannot predict loneliness.

Discussion

The aim of the present study was to investigate whether young adults used music listening to deal with their loneliness during the covid-19 pandemic. In particular, the study aimed to investigate whether they used music in accordance with three different coping strategies; avoidance, emotion-oriented coping and problem-oriented coping. The prediction was that the more they perceived themselves as lonely, the more they listened to music. There were positive correlations between loneliness and avoidance, as well as emotion-oriented

coping. Problem-oriented coping, however, showed no relation with loneliness. The results showed that the use of coping strategies could only explain a small part of the variance. Although it does not explain enough how young adults handle their loneliness, coping strategies in this case yet turned out to be relevant.

Guidelines provided by Gignac and Szodorai (2016) were followed to interpret correlations size, where $r = .10$ is considered small, $r = .20$ medium, and $r = .30$ a strong correlation. Avoidance turned out to be the coping strategy that those who experienced themselves as lonely used the most. Emotion-oriented coping also proved to be well used. Further, a positive relationship between avoidance and emotion-oriented coping was found. Thus, the two variables were not completely independent of each other. The connection between emotion-oriented coping and avoidance may not be surprising since previous research argues that emotion-oriented coping includes the same type of strategies as avoidance coping (see Baker & Berenbaum, 2007)

In the present study, there was no relationship between problem-oriented coping and loneliness. Since problem-oriented coping is most often used to solve a problem, this type of strategy might not be so easily used when it comes to loneliness. It may not have been particularly easy to resolve one's perceived loneliness during a pandemic, nor does it have to be easy to find a partner or similar, regardless of the pandemic. This may explain part of why problem-oriented coping in the present study has not been used by those who feel most lonely. On the other hand, the use of emotion-oriented coping is usually done to reduce the stress that one experiences in a particularly stressful situation. Loneliness can be perceived as stress, and then there might be more relevant to use emotion-oriented coping as a strategy in situations that you are not able to change.

The present study showed that of those who feel the loneliest, avoidance and emotion-oriented coping are most commonly used. Previous research has shown that avoidance and emotion-oriented coping are well used by people to feel less lonely (Vasileiou et al., 2019). This might explain why it is well used by the ones' who feel the loneliest. Although these are commonly used to cope with loneliness, it is unclear whether they actually work since the users feel most lonely. Li et al., (2019) argued that if people instead of emotion-oriented coping used problem-oriented coping, they would experience themselves as less lonely. In line with the present study, there was no relation between loneliness and the use of problem-oriented coping. However, whether those who use this strategy generally feel less lonely or whether it is the strategy that makes people feel less lonely is unclear in the present study.

Problem-oriented coping showed no relation with loneliness. Instead, an unexpected correlation was found between problem-oriented coping and the number of listening hours. The results suggest that it might become more fun or easier to e.g., carry out things such as cleaning or different chores if one can listen to music at the same time. Although, it has no direct connection to loneliness. An exploratory analysis regarding the number of listening hours per day was also performed. This did not turn out to say anything about loneliness or how it is handled by young adults. Listening hours were not what we were looking for, but in relation to problem-oriented coping, it is after all interpretable, and perhaps should be investigated at another time. As with problem-oriented coping, it turns out that number of listening hours neither matters for how young adults handle their loneliness in the present study.

Additional variables

In addition to examining the variables that are relevant to the research question, there were other side findings. If the participants found music or the lyrics most important when listening to music were descriptively examined. There was an interest in this question, but it did not matter for the present study. Music proved to be more important for music listeners than lyrics. To investigate whether it is the music or lyrics that play the biggest role and in what way, the study needs to be designed for this specifically. There was also nothing interpretable regarding this issue.

The present study also looked at the role of music genres for the music listener. The three most listened to genres were pop, alternative and singer-songwriter, and the vast majority of the participants listened to more than one genre. Neither did music genres matter for the purpose of the present study but gave an insight into the participants' musical- tastes and habits.

Study limitations

Due to the covid-19 pandemic, loneliness has been an important topic for people of all ages. The present study gained momentum just when all restrictions were released in Sweden, which may have affected the respondents' answers. Given this, the answers might have looked different if the study had been conducted a year ago. Perhaps the relation to problem-oriented coping also would have been different, as the music might have been used more for that purpose in relation to loneliness at the time of distancing restrictions.

The questionnaire in the present study was conducted in English, which is a second language for many of the participants. This might have affected the understanding of the questions. The choice to use English in the questionnaire was partly based on the fact that not

all people living in Sweden may have a basic knowledge of the Swedish language. Also, since the survey was published on social media and by word of mouth, there was a possibility that it would reach someone who is not a native Swedish speaker or a Swedish citizen. Therefore, the study's focus is not on location but on population (young adults).

Generalisability is limited due to the lack of participants. Considering the present study is a master thesis, there was a time limit. Therefore, no pilot study was performed. Since there were no previous studies in this particular area, it could not be used as a guideline regarding sample size either. The goal was to reach as high number of participants as possible, in order to make the correlations stable. The sample size in the present study unfortunately has limitations since it did not fulfill the recommendations for presenting stable correlations.

Conclusion

The aim of the present study was to help fill the gap that exists in the field, regarding young adults. In addition, the aim was for the present study was to draw attention to the problem of young adults' feelings of loneliness. Avoidance was the coping strategy most used, by those who also felt most lonely. Avoidance was also found to correlate with emotion-oriented coping. However, problem-oriented coping turned out to have nothing to do with how young adults handle their loneliness. Further research could examine various coping strategies (not only the three chosen for the present study), to investigate what they might add to the results for the research question. Furthermore, future studies could investigate how the number of listening hours matters to handle different things in life, e.g., carrying out different chores.

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Appendix – Survey

Survey Introduction

The purpose of the present study is to investigate the relationship between loneliness in young adults and listening to music. This is a masters student project in the Master of Psychology program at Lund University. The survey consists of 13 questions and takes about 5 minutes to complete.

Taking part in the study is voluntary. You can at any point choose to leave the questionnaire and cancel your participation without any negative consequences. You will not be able to be identified from your answers and you are thus fully anonymous. Since no answers can be traced back to you, we kindly ask you to answer as truthfully as possible. Remember, there is no right or wrong answers. There are no risks for you in participating in this study.

The data gained from this survey will only be used for the purpose of this study and will be handled in accordance with GDPR. The collected material will be handled confidentially and under safe conditions. This means that only myself and my supervisor will have access to the collected data. The information collected will only be used to fulfil the purpose of the study. When the work is completed and approved, it will be published in full text in LUP database. The data file with the individual answers will not be published.

You have to be 18 years of age to participate. If you have any questions about the purpose of the study or the questions in it, feel free to contact us; student Julia Persson at ju6880pe-s@student.lu.se or supervisor and responsible researcher Åse Innes-Ker at ase.innes-ker@psy.lu.se.

Consent

By submitting the answers to the questionnaire, you agree to the above conditions that the study entails.

By answering Yes to this question I confirm that I have been informed about the purpose of this study. I am aware that I can at any time abort my participation. I am above 18 years of age.

- Yes

Questions about listening to music

Please answer the questions regarding your routines for listening to music:

Approximately, how many hours per day do you listen to music?

- Less than 1 hour
- 1-3 hours
- 4-6 hours
- 7-9 hours
- 10 hours or more

Approximately, do you listen to music more or less before the start of the covid-19 pandemic?

- More
- Less
- The same as before

Do you listen to one or multiple music styles?

- One
- Multiple

When you listen to music, do you care more about the lyrics or the music?

- Music
- Lyrics

What music genre is your favourite? Choose from the list. (We understand that you can have several favourites and that it might not be an easy choice, but please choose only one of them).

What music genres have you been listening to during the last year? Choose from the list (max 3).

Music genres:

- Alternative (e.g., indie rock, grunge)
- Blues (e.g., acoustic, folk)
- Classical (e.g., opera, symphonic)
- Country (e.g., bluegrass, dansband)
- EDM (e.g., dubstep, techno)
- Rap (e.g., hip-hop, underground rap)
- Jazz (e.g., big band, trad jazz)
- K-pop
- Metal (e.g., heavy metal, death metal)
- Pop
- R&B/Soul (e.g., modern soul, funk)
- Reggae
- Rock (e.g., hard rock, psychedelic)
- Singer/Songwriter (e.g., alternative folk, new acoustic)
- Soundtrack (e.g., musicals, tv soundtrack)

Questions about loneliness

The next questions concern how you feel about different aspects of your life. For each one, please state how often you feel that way.

How often do you feel that you lack companionship?

- Hardly ever
- Some of the time
- Often

How often do you feel left out?

- Hardly ever
- Some of the time
- Often

How often do you feel isolated from others?

- Hardly ever
- Some of the time
- Often

Do you feel more, les or equally lonely than before the covid-19 pandemic?

- More
- Less
- Equally

Questions regarding coping with loneliness through music listening

Young adults can feel lonely in different situations and by different reasons. For each statement, please indicate how often you listen to music for managing loneliness in your everyday life.

When I feel lonely, I listen to music to:

- avoid thinking about my personal problems
- avoid thinking about stressful situations
- carry out what I am supposed to do (e.g., study, work, clean up, exercise)
- improve my performance while doing other activities (e.g., arts, sports) or imagine new solutions to problems
- decrease negative emotions, such as sadness, depressions, anxiety
- increase positive emotions, such as happiness, enthusiasm, hope or pride

- Never
- Rarely
- Sometimes
- Often
- Very often

Demographic questions

Please state your age.

- 18-23
- 24-29
- 30.34

- 35 or more

To which gender identity do you most identify? Your answer will not be traced back to you or linked to your answers.

- Male
- Female
- Non-binary/third gender
- Transgender Male
- Transgender Female
- Prefer not to say

Additional Thoughts

If you wish to leave any comments you are welcome to do so in the box below. It is of course voluntary and not part of the study.

Final words

Your response has been recorded!

When the work is complete and approved, you can check the results via LUP database.

If you have any comments or questions, please let us know at ju6880pe-s@student.lu.se (student) or ase-innes-ker@psy.lu.se (responsible researcher).

You are also welcomed to contact the research principal at webb@psy.lu.se

Thank you for your time spent taking this survey!