

LGBTQ+ Dating: Online dating and its effect on well-being and relationship satisfaction in
young adults

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Abstract

Background: In the quickly changing landscape of dating and the pursuit of romantic relationships, online dating and its effects have been of special interest. Relationships that formed through online dating apps are associated with lower relationship satisfaction. In turn, lower relationship satisfaction has been shown to decrease well-being in individuals. Similarly, dating app use is associated with higher levels of anxiety and depressive symptoms. The implications of these effects are of even greater importance to the groups that report the highest usage: young adults and LGBTQ+ individuals.

Objective: The current study investigated the association between a relationship's origin (online or offline) and the satisfaction experienced in these relationships and on a person's level of well-being in young adults between members of the LGBTQ+ community and those who are heterosexual and cisgender. Relationship satisfaction was expected to mediate the negative association of online relationship origin with well-being. Additionally, being part of the LGBTQ+ community was expected to moderate the association of relationship origin with relationship satisfaction.

Method: In order to investigate the proposed model, 210 participants in committed romantic relationships, aged 18 to 29 ($M = 22.24$, $SD = .49$), were gathered using convenience sampling. In this sample, 40 per cent of participants were categorised as part of the LGBTQ+ community. The current study adhered to a correlational survey design, in which participants answered self-report questionnaires about their relationship satisfaction and their well-being. Moreover, they were asked to report about their relationship status and other demographical information.

Results: Results of the data analysis showed a significant effect of relationship satisfaction on well-being. Additionally, LGBTQ+ membership significantly affected the effect of relationship origin on relationship satisfaction. Unexpectedly, participants of the study reported higher satisfaction in relationships that formed online. This effect, like all remaining proposed effects, was not significant.

Conclusion: The insignificance of the proposed effects of LGBTQ+ membership, relationship origin on well-being and relationship satisfaction might imply that the choice of dating venue (i.e., online or offline) does not predict relationship outcomes. Future research might benefit from considering the level of commitment in understanding the effects of online dating.

Keywords: relationship satisfaction, well-being, young adults, LGBTQ+, online dating

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LGBTQ+ Dating: Online Dating and its effect on well-being and relationship satisfaction in young adults

One important pillar of human well-being is one's social life and the relationships one cultivates. To desire interpersonal attachment is one of the forces that drive human life, and its fulfilment is necessary for a person's well-being (Demir, 2008; Frederickson, 2006). One type of interpersonal relationships is romantic relationships, which research has paid special attention to. This study aims to gain further insight into this relationship while also considering the influence of the origin of a relationship (i.e., online or offline). Additionally, this relationship is going to be investigated more closely by comparing LGBTQ+ individuals (i.e., those people who do not identify with the gender they were assigned at birth and/or who feel romantic and/or sexual attraction to people of the same gender and/or more than one gender and/or those who do not experience sexual and /or romantic attraction) and those who are not considered to be part of the LGBTQ+ community.

Well-being

When referring to a person's well-being most researchers consider not only their experience of positive emotions but also the level to which they function in society. Lamers, Westerhof, Bohlmeijer, ten Klooster, and Keyes (2011) define well-being as one's emotional, psychological and social well-being. The effects of well-being on a person's life are of high importance. Not only is higher well-being associated with higher productivity, a more enjoyable social life, and higher rates of success, but research also leads to suggest that a higher level of well-being is able to operate as a protective factor against physical illnesses (Heinitz, Lorenz, Schulze, & Schorlemmer, 2018). It is therefore of great use to investigate what influences well-being in people.

Relationship satisfaction

One such factor that may influence a person's well-being is the satisfaction one experiences in a relationship. Highly satisfying relationships are valued for the companionship, support, and the feelings of love and care that partners provide each other with (Collins, Welsh, & Furman, 2009). A study conducted by Hudson, Lucas, and Brent in 2020 offered a new insight into the effects of relationship quality on well-being. In their study they compared individuals in relationships with higher and lower relationship satisfaction with single individuals. They found that those in a happy relationship exhibited higher well-being than those with less highly evaluated relationships. In other words, they found that relationship satisfaction acts as a good predictor of well-being.

The importance of romantic relationships is especially pronounced in the study of

young adults. Romantic relationships contribute to the formation of an individual's self-concept and their integration in social life (Simon & Barrett, 2010). In emerging adulthood, people generally tend to spend more time on the pursuit of romantic relationships and build their expectations of what such a relationship entails. If these relationships are of high quality, their maintenance is associated with higher mental and physical well-being (Gomez-Lopez, Viejo, & Ortega-Ruiz, 2019). Additionally, evidence suggests that same-gender relationships have positive effects on LGBQ (i.e., Lesbian, Gay, Bisexual, Queer) youths' well-being (Baumeister et al., 2010). For instance, after entering in a same-gender relationship, LGBQ participants reported higher self-esteem and lower levels of internalised homophobia, than LGBQ participants in mixed-sex relationships or singles. It consequently stands to reason that being in a relationship is beneficial for LGBQ youth, in part to guard against the stress they experience by being exposed to homophobia (Baumeister et al., 2010). Naturally, romantic relationships are considered to be of high importance.

Online dating apps

A comparatively new way of forming relationships, is the use of online dating apps (e.g., Tinder, Bumble, Her, Grindr, etc.). These first launched in 2007 (Bonilla-Zorita, Griffiths, & Kuss, 2020). These smartphone apps use geotagging technology to connect users in a certain kilometre radius. The profiles users set up ask for general demographics and things like hobbies or interests. What is most obviously presented to other users, however, are the pictures one chooses to share (Potarca, 2020). Especially, younger people (18-29 years old) have used these apps in the past or are currently using them. 48 per cent of Americans aged 18 to 29 report that they have used dating apps, 20 per cent report that they are in a relationship that formed on such a platform (Anderson, Vogels, & Turner, 2020).

LGBTQ+ individuals are an important group of people to consider here. According to a recent study, members of the LGBTQ+ community report the highest usage rates of such apps (Anderson et al., 2020). In 2019, 55 per cent of LGB (i.e., Lesbian, Gay, and Bisexual) people stated that they had used online dating apps at some point, 33 per cent reported being currently active on them (Anderson et al., 2020).

Advantages of online dating apps A variety of reasons become apparent when considering the advantages of online dating compared to other dating venues. One commonly reported advantage of these dating apps is that users feel like they are able to meet people they would have otherwise never met (Anderson et al., 2020; Eichenberg et al., 2020). Moreover, users report that they find it easier to find a partner with similar interests or hobbies (Eichenberg et al., 2020). Additionally, a study by Fullwood and Attrill-Smith (2018)

discovered that the perceived success chance is higher on online dating channels than offline. Meaning that people generally evaluate the chances of getting a positive response when asking for a date online higher than they would when asking the same person in a real-life setting.

There is one additional advantage that pertains to mobile dating app use in LGBTQ+ individuals. Online dating apps function as a safe space to meet other LGBTQ+ people without being exposed to the social stigma surrounding same-gender attraction (Lemke & Weber, 2017; Schrimshaw, Downing, Cohn, 2018). Consequently, many members of the LGBTQ+ community turn to online platforms, like social media or online dating apps, to experience support and meet others like them (Zervoulis, Smith, Reed, & Dinos, 2019). Overall, one may understand why online dating apps seem to become more and more popular.

Disadvantages of online dating apps Nevertheless, online dating apps also bring up concerns in users and pose certain problems. Common concerns include, for instance, dishonesty of other users (Anderson et al., 2020; Eichenberg et al., 2020). Moreover, many users voice concerns about how safe online dating is, whether that be their own safety or the safety of their data (Anderson et al., 2020; Eichenberg et al., 2020). Furthermore, while 54 per cent of users generally view relationships originating from online dating apps to be as successful as other relationships (Anderson et al., 2020), research suggests that online dating apps are associated with relationships that are less satisfying than those built on online websites or in offline settings (Portaca, 2020). Additionally, a disadvantage of online dating apps is the high number of harassment experiences. Those include the repeated contact initiation after users expressed that they did not want to be messaged, the unwanted sending of explicit messages or pictures, and being threatened (Anderson et al., 2020). Lastly, the use of dating apps is generally associated with higher levels of anxiety, sadness, and depression in its users (Coduto, Lee-Won, & Baek, 2019; Erevik, Kristensen, Torsheim, Vedaa, & Pallensen, 2020; Her & Timmermans, 2020). This leads to believe that online dating may have negative consequences on a person's well-being.

When looking at the problems online dating apps pose for LGBTQ+ individuals, a variety of additional aspects come to mind. First and foremost, in a study from 2020 (Anderson et al., 2020), LGB users of online dating apps, reported nearly twice as much harassment (56 %) as heterosexual users (32 %). Additionally, the conduct on these apps may pose a problem. To many young LGBTQ+ people, online forums and online dating apps are the only way of finding information about sex practices between same-sex partners (Hawkins & Watson, 2017). Therefore, the risk of misinformation is quite substantial (Hawkins &

Watson, 2017). The same may be said about other behaviours in relationships. The portrayal of healthy and supportive same-gender relationships in mainstream media is quite limited, and real-life exposure often even more so (Cook, 2018; European Union Agency for Fundamental Rights, 2014; Floegel & Costello, 2019). Hence, especially those members of the LGBTQ+ community who have only recently started dating may be more likely to enter relationships of low quality. Overall, one may say that online dating apps offer convenient advantages but also pose unique challenges to their users.

The aim of the current study is to compare the association between relationship origin (online vs offline) and well-being as mediated by relationship satisfaction between individuals who identify as part of the LGBTQ+ community and those who do not. The current study proposes seven hypotheses.

H₁: Significance of a moderated mediation model.

This model is fit to include well-being scores ('well-being') and relationship satisfaction ('satisfaction') scores as well as whether a person can be categorised as LGBTQ+ ('LGBTQ') and if their relationship originated offline or online ('origin', Figure 1). The model's complexity leads to the investigation of six additional relationships.

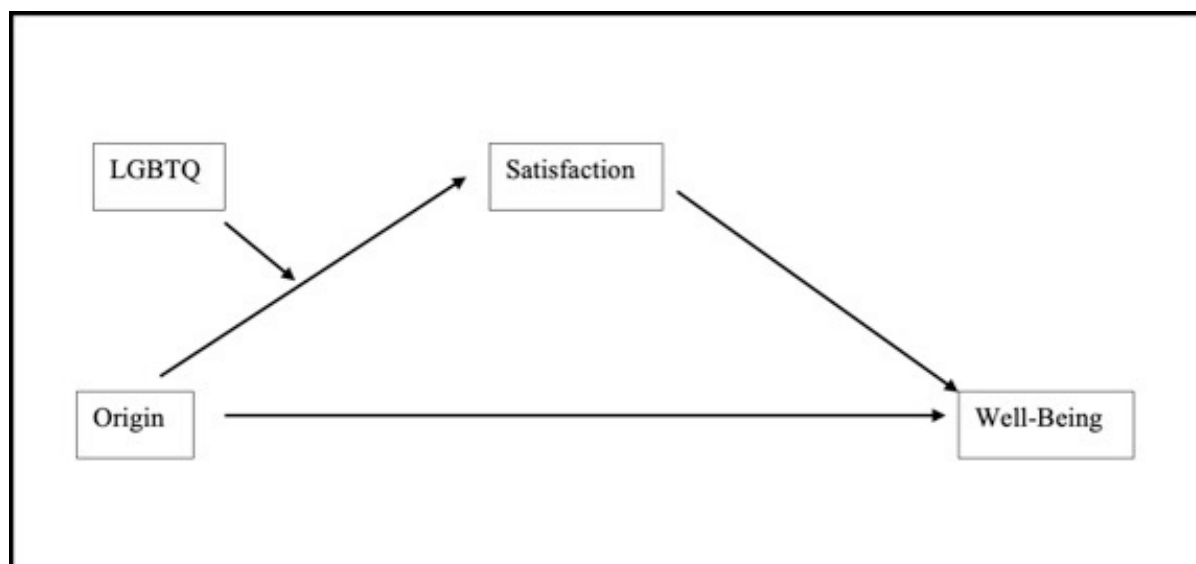


Figure 1. Moderated Mediation Model fit to include 'origin', 'well-being', 'satisfaction', and 'LGBTQ'.

H₂: Online origin of a relationship is negatively associated with well-being.

The second hypothesis predicts those individuals whose relationship formed online to report lower well-being scores than those that met their partner/s offline.

H₃: Online origin of a relationship is negatively associated with relationship satisfaction.

It is expected that those individuals who met their partner/s online report lower satisfaction scores than those who met their partner/s offline.

H₄: Relationship satisfaction is positively associated with well-being.

It is hypothesised that higher relationship satisfaction predicts higher well-being scores and vice versa.

H₅: LGBTQ+ membership is negatively associated with relationship satisfaction.

It is expected that those who are part of the LGBTQ+ community experience lower relationship satisfaction compared to those who do not identify as part of the LGBTQ+ community.

H₆: The interaction of relationship origin and LGBTQ+ membership is negatively associated with relationship satisfaction.

It is hypothesised that those who identify as part of the LGBTQ+ community and who also met their partner/s online report the lowest relationship satisfaction scores. While those who cannot be categorised as belonging in the LGBTQ+ community and who met their partner/s offline are suspected to report the highest relationship satisfaction scores.

H₇: LGBTQ+ membership moderates the mediation effect.

It is expected that the mediation effect of LGBTQ+ membership on the relationship between relationship origin and well-being of a person differs between LGBTQ+ individuals and those who are not.

Method

Design

This study adheres to a correlational survey design. A questionnaire was designed to derive multiple sets of scores. Among those were the measurements of four relevant variables, that are to be used in a moderated mediation analysis. First, a dichotomous variable was used to compare those who identify as part of the LGBTQ+ community with those who do not, this variable will be referred to as 'LGBTQ'. Second, the setting in which the respondents met their current partner (offline or online through social media platforms) was assessed as a dichotomous variable called 'origin'. Third, the degree to which participants are satisfied with

their relationship, resulted in an ordinal variable called 'satisfaction'. Fourth, the ordinal variable 'well-being' described the participant's well-being.

Participants

Participants were gathered through convenience sampling by sending a survey link by Qualtrics to people via the social media platforms WhatsApp, Facebook, and Instagram. Additionally, the study was also made available through the Sona System of the University of Twente, in which students at the university are rewarded for their participation through partial credit points.

All participants needed to meet two criteria in order to be included in the analysis. They needed to be between 18 and 29 years of age and they needed to be in committed relationship that was either formed on an online dating app or in real life. Additionally, all responses with missing data were deleted. After the exclusion of 594 participants, 210 participants voluntarily took part in the current study. The participants mean age was 22.24 (SD= .49) and their nationality consisted to 66.7 per cent of Germans (7.6 % Dutch, 25.7 % Other). Moreover, 76.7 per cent of participants were female (15.2 % male, 7.1 % non-binary, 1 % other). Furthermore, 39.5 per cent of participants were categorised as part of the LGBTQ+ community, 60.5 per cent were not. This distinction was made based on a change between the gender assigned at birth and the gender identity of the participant and/ or when a sexual orientation other than heterosexual was reported. The research was approved by the BMS Ethics Committee of the University of Twente. All participants gave active informed consent, prior to participation.

Materials

The study employed two already established scales. First, the Mental Health Continuum Short Form (MHC-SF; Lamers, et al., 2011) designed to assess an individual's well-being, was used as a measure of well-being in respondents. This scale assesses well-being in 14 items (e.g., "During the past month, how often did you feel happy?"; see Appendix A). Participants indicated how often they have felt or experienced an emotion or thought within the last month on a 6-point Likert scale (i.e., never, once or twice a month, about once a week, two or three times a week, almost every day, every day). Internal consistency was reported as high, with a Cronbach's alpha of .89 (Lamers, et al., 2011).

Second, the Satisfaction sub-scale of the Investment Model scale was used (Rusbult, Martz, & Agnew, 1998). The Satisfaction sub-scale consists of 10 items designed to assess a person's satisfaction with their romantic relationship. This sub-scale is made up of five facet

level items, intended to prepare the participant to answer the five global items, that follow, more accurately. Participants were asked to indicate their agreement with statements like, 'My relationship is close to ideal' on a 9-point Likert scale (see Appendix A). The sub-scale is reported to have high reliability with Alpha scores between .92 and .95 (Rusbult, et al., 1998). Moreover, the Commitment sub-scale of the Investment Model scale was also included in the survey as part of a related study.

Both scales were also made available in German. For the Investment Model scale no translation was available, therefore the scale was translated using the back-translation method (see Appendix A). In order to ensure validity of both scales, an inter-item-correlation analysis was run separately for the German and English versions of the scales (see Appendix B). The Cronbach's alpha values of the satisfaction sub-scale of the Investment Model scale were above 0.9 for both the original version and the German translation, which indicate that an item may possibly be redundant (Streiner, 2003). Consequently, the first item ('I feel satisfied with our relationship' / 'Ich fühle mich zufrieden mit unserer Beziehung. '); see Appendix A) was deleted. Afterwards, the inter-item-correlation is to be considered 'very good' in both the original version ($\alpha = .86$) and the German translation ($\alpha = .88$). Similarly, the English version of the MHC-SF also reported a Cronbach's alpha score above 0.9. The deletion of the 14th item ('that your life has a sense of direction or meaning to it' / 'dass Ihr Leben Richtung und Sinn hat. '; Lamers, et al., 2011) lowered the inter-item-correlation of both the original ($\alpha = .89$) and the German version ($\alpha = .85$) to a 'very good' value (see Appendix B).

Procedure

In order to participate in the study, respondents needed a computer or mobile device with a working internet connection. The current study consisted of five parts. Firstly, before starting with the study, participants were informed about the aim of the study, its structure, and the confidentiality of the data gathered (see Appendix C). Secondly, participants signed an informed consent form which also elaborated on how participants may withdraw their participation at any point in time (see Appendix D). Thirdly, participants filled out demographical information about themselves (age, nationality, gender assigned at birth, gender identity, sexuality, and relationship status) and further information about their relationship (length and origin; see Appendix E). Participants who indicated that they were single skipped to the end of the study immediately. Fourthly, the remaining participants were presented with the three measures of 'commitment', 'satisfaction' and 'well-being' in an order that was randomized between participants to equalise missing data. Lastly, participants were

thanked for their time and encouraged to ask the researchers any questions should they arise. Overall, the study took approximately 10 minutes to complete.

Data Analysis Plan

In the following analysis the level of satisfaction people experience in their relationship as a possible mediator for the relationship between a person's well-being and the origin of their relationship was of interest. Moreover, the possible moderation effect of a person's LGBTQ+ membership on the effect of relationship origin on relationship satisfaction was investigated. The analysis consisted of three parts and was conducted using SPSS and the PROCESS MACRO extension.

As a first step, the inter-item correlation was calculated, once for participants who choose the English version of the survey and again for those who chose the German version.

The second step encompassed the descriptive analyses and consequential examining of all relevant variables: 'well-being', 'origin', 'satisfaction', and 'LGBTQ'. For the variables 'well-being' and 'satisfaction' mean scores first needed to be calculated. Furthermore, a bivariate correlation analysis was run, including all relevant variables. Additionally, the data was screened for outliers (see Appendix F).

Thirdly, hypothesis testing was conducted by running the SPSS PROCESS MACRO model seven set to include 'origin' as the independent variable, 'well-being' as the outcome variable, 'satisfaction' as the mediator variable, and 'LGBTQ' as the moderator variable (Figure 2).

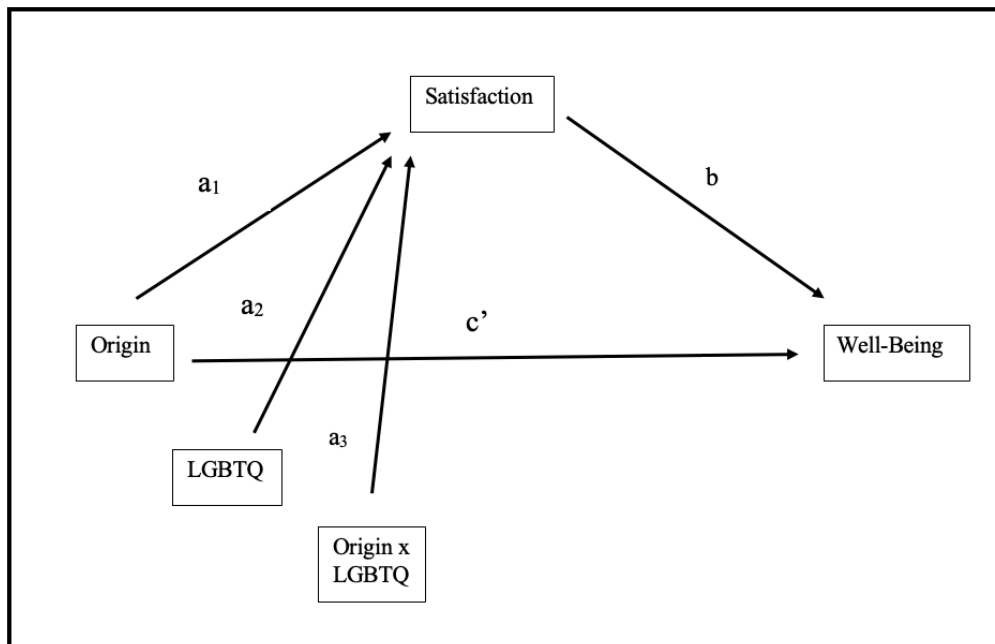


Figure 2. Statistical Moderated Mediation Model fit to 'origin', 'well-being', 'satisfaction', and 'LGBTQ'.

For one, that all four variables ('satisfaction', 'well-being', 'origin', 'LGBTQ') interact according to a moderated mediation model was tested (i.e., H_1). Moreover, the direct effect of the independent variable 'origin' on the outcome variable 'well-being', which will be referred to as 'c'' (i.e., H_2) was investigated. Two additional relationships are suggested to account fully or to some extent for 'c''. The mediator variable, 'satisfaction', thereby intercepts the first relationship and creates the effect of 'origin' on 'satisfaction' (' a_1 '; i.e., H_3) and the relationship between 'satisfaction' and 'well-being' (' b '; i.e., H_4). Moreover, the model offers information on the effect of 'LGBTQ' on 'satisfaction' (' a_2 '; i.e., H_5). Additionally, the proposed negative interaction effect of 'origin' and 'LGBTQ' on 'satisfaction' was tested using the information that the created a_3 -path provides (i.e., H_6). Lastly, there is a proposed effect of 'LGBTQ' on ' a_1 ', consequently acting as a moderator to this relationship (i.e., H_7).

Results

Precursory Analysis

In order to ensure the reliability of the final model, all assumptions of multilinear regression were checked. The distribution of the mean 'satisfaction' scores did not meet the normality assumption. These scores were, therefore, transformed using the logarithm 10 transformation. Additionally, the homoscedasticity and the linearity assumption were not met. When screening for outliers, seven respondents showed extreme values in the mean

satisfaction score. These cases were winsorized, in doing so the individual scores are replaced by the nearest score in the dataset that is not an outlier. Afterwards, the data showed no more heteroscedasticity. However, the linearity assumption in the data is still not met. Similarly, the normality assumption of the distribution of satisfaction scores is not met. Nevertheless, the results of the planned analysis may still offer further insights.

Furthermore, a simple bivariate correlation analysis was run to include all relevant variables. Three significant correlations emerged (Table 1). The positive correlation between ‘origin’ and ‘satisfaction’ could be categorised as negligible. While the correlations between ‘well-being’ with ‘satisfaction’ and ‘LGBTQ’ respectively are considered to be low correlations (see Table 1).

Table 1

Correlations with Confidence Intervals

Variable	1	2	3	4
Well-being				
Satisfaction	.37**			
	[0.24, 0.48]			
Origin	.06	.15*		
	[- 0.06, 0.19]	[0.03, 0.26]		
LGBTQ	- .30**	.05	.09	
	[- 0.42, -, 18]	[- 0.09, 0.17]	[- 0.04, 0.23]	

Note. Values in square brackets indicate the 95 % confidence interval for each correlation
* indicates $p < .05$. ** indicates $p < .01$.

Hypothesis testing

To test the first hypothesis a moderated mediation analysis was run using the model 7 of PROCESS MACRO SPSS extension. The index of moderated mediation indicates whether a moderated mediation effect is present and to which extent it explains the variance in the outcome variable. In the current study, this index was not significant (95% CI [-0.08, 0.25]). Within the dataset used for this study, the moderated mediation relationship accounts for

about seven per cent of the variance in ‘well-being’.

Concerning the second hypothesis that relationship origin is negatively associated with well-being, the moderated mediation analysis offers more insights as well (Figure 3). The c' -path usually allows for a comparison to be made between the total effect of the independent variable on the outcome variable (i.e., c -path) compared to the direct effect of the independent variable when the effects of the moderated mediation are accounted for (c' -path). The c' -path in the current model is not significant ($t(207) = 0.11, p = .916$) with mean scores of well-being being very similar between origins (Table 2). Normally this would indicate that the moderated mediation accounts completely for the effect size of the initial c -path (i.e., a complete mediation). However, since the c -path is not significant due to the violation of the linearity assumption (Table 1), this inference cannot be drawn.

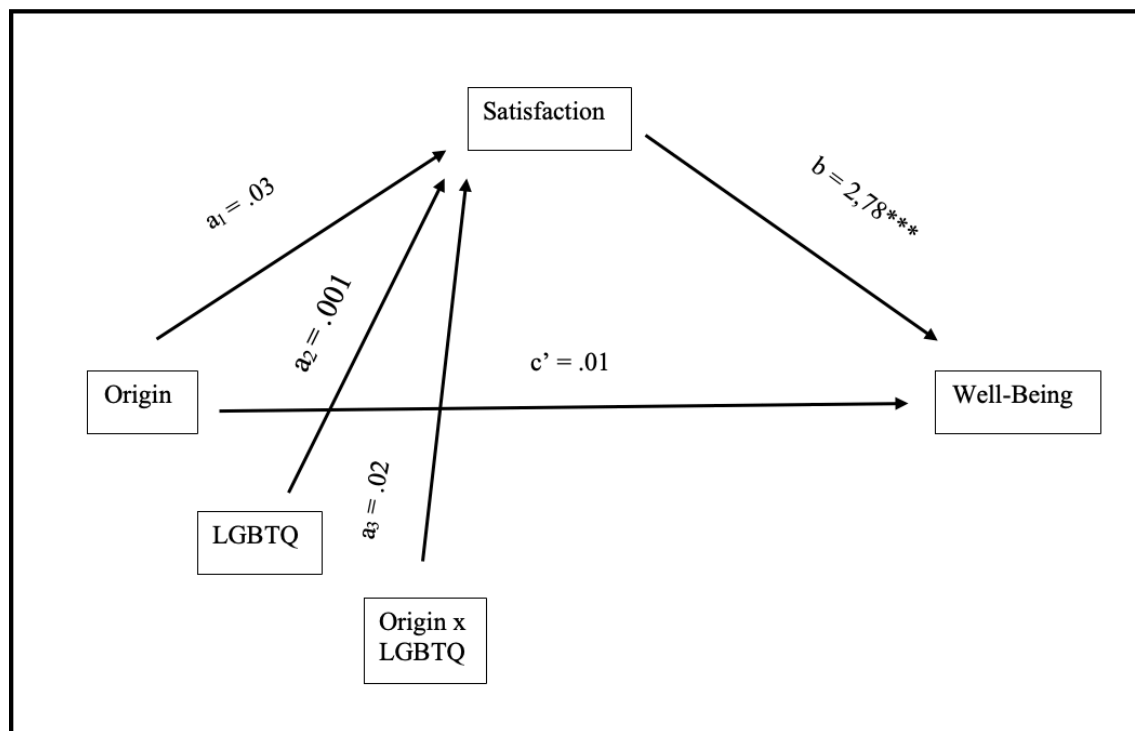


Figure 3. Statistical Moderated Mediation Model fit to ‘origin’, ‘well-being’, ‘satisfaction’, and ‘LGBTQ’ with Coefficient values.

Table 2

Means and Standard Deviations of Well-Being divided between Types of Relationship Origins

Origin	Online		Offline	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Well-Being	3.00	0.83	3.12	0.72

When considering the third hypothesis that relationship origin is negatively associated with relationship satisfaction, no significant effect of the a_1 -path was found ($t(206) = -1.01, p = .280$). While an additional simple linear regression analysis fit to include ‘origin’ as the predictor variable and ‘satisfaction’ as the outcome variable does show significance ($F(1, 208) = 4.71, p = .031, R^2 = .017$), this does not hold true within the moderated mediation model.

The fourth hypothesis that relationship satisfaction is positively associated with well-being, was tested using the moderated mediation model analysis. A significant effect of relationship satisfaction on well-being was found ($t(207) = 5.53, p < .001$), indicating a significant b-path.

When testing the fifth hypothesis using the moderated mediation model analysis, no negative effect of ‘LGBTQ’ on ‘satisfaction’ was found ($t(206) = 0.06, p = .952$). Thereby rendering the a_2 -path insignificant. Similarly, both groups show similar mean scores of ‘satisfaction’ (Table 3).

Table 3

Means and Standard Deviations of Relationship Satisfaction divided between LGBTQ+ Membership

LGBTQ+ membership	Yes		No	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Satisfaction	6.48	1.33	6.34	1.32

Concerning the sixth hypothesis, the regression model of the a_3 -path provides more information about the interaction between the independent variable and the moderator and how much of the variance in the mediator variable their interaction explains. Given the current dataset, interaction of the independent variable ‘origin’ and the mediator ‘LGBTQ’ only accounts for 0.2 per cent of the variance in satisfaction. Furthermore, this effect is not significant ($t(206) = 0.71, p = .480$).

Lastly, considering the seventh hypothesis and the expected moderation of the mediation effect the index of moderated moderation can also be investigated at all levels of the moderator. This effect was only significant at one level of the moderator (i.e., in LGBTQ+)

individuals). While being considered part of the LGBTQ+ community did have a positive indirect effect on satisfaction ($b = 0.14$, 95 % CI [0.03, 0.28]) being cisgender and heterosexual did not ($b = 0.07$, 95 % CI [-0.05, 0.19]; Figure 4).

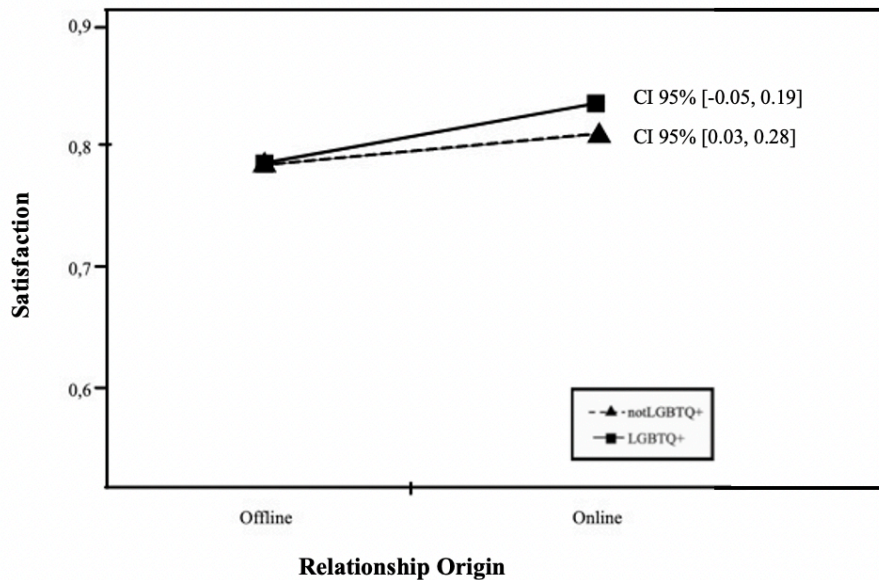


Figure 4. Mean Scores of Satisfaction (log10 transformed) between Offline and Online Origin. Divided by LGBTQ+ identification marks. Transformed satisfaction scores range from 0.51 (very low) to 0.9 (very high). The values in square brackets indicate the 95 % confidence interval.

Discussion

The aim of the current study was to gain more insights into the way in which online dating apps affect relationship satisfaction and well-being in those who used them to form a committed relationship. Of special interest was whether this relationship was affected by the LGBTQ+ membership of a person. In doing so, it was hoped that more information about the efficacy of online dating for LGBTQ individuals, who report the highest use of such applications, becomes available.

The first hypothesis expected a mediated moderation model to significantly account for the variance in well-being scores. This hypothesis needed to be rejected. Moreover, the second hypothesis proposing that an online relationship origin is negatively associated with well-being scores needed to be rejected. Additionally, the third hypothesis that suspected a negative association of an online relationship origin with relationship satisfaction is to be rejected. As expected, a significant positive effect of relationship satisfaction on well-being was found. Consequently, the fourth hypothesis can be accepted. Furthermore, no significant

negative effect of LGBTQ+ membership on relationship satisfaction was found, indicating that the fifth hypothesis is to be rejected. Similarly, the sixth hypothesis was rejected as well, since no significant negative interaction effect of LGBTQ+ membership and relationship origin was found to impact relationship satisfaction scores. Lastly, the seventh hypothesis that LGBTQ+ membership moderates the mediation effect was partially rejected. This partial rejection is based on the significant moderation effect that is found in LGBTQ+ individuals only.

To set the results of the current study into context, they will be linked to current literature, in so far as comparable research is available, and their implications will be discussed. Firstly, the rejection of the first hypothesis shows that the proposed model is not significant. Therefore, this model is not able to explain the relationship between dating venue, relationship satisfaction, and well-being of a person. Previous studies have not investigated this model which, consequently, offers no points of comparison. However, the following discussion and contextualisation of the remaining results propose explanations for its non-significance.

Secondly, origin was not significantly correlated to well-being. This shows that a person who found their partner/s online is not more likely to report lower or higher scores of well-being compared to relationships formed in a real-life setting. Consequently, the use of online dating apps does not appear to predict a person's well-being level. Nevertheless, several other studies suggest negative consequences of online dating on well-being (Coduto et al., 2019; Erevik et al., 2020; Her & Timmermans, 2020). Participants of these studies reported higher rates of anxiety, sadness, and depression, which generally indicate lower well-being. It may be possible that these adverse effects of online dating only pertain to active users of such apps.

Thirdly, while the effect of origin on satisfaction is not significant within the proposed model, a weak but significant positive effect was found in a linear regression analysis. This finding implies that relationships formed on online dating apps result in more satisfying relationships, which contradicts the finding of Potarca (2020). A negative effect of relationship origin on relationship satisfaction was found here. The non-significant effect of origin on satisfaction may be attributed to the fact that only committed relationships were considered in the current study. It stands to reason that most people would not commit to one or more partners if they are not satisfied with the relationship. Therefore, the commitment of a relationship may already act as a filter for many unsatisfying relationships in both online and offline dating. The fact that the effect does not remain significant in a moderated mediation

model, suggests that the inclusion of LGBTQ+ membership as a moderator variable accounted for some of the influence of relationship origin.

Fourthly, relationship satisfaction had a significant effect on well-being. This reflects the findings of other studies as well, both for those who are part of the LGBTQ+ community and those who are not (Baumeister, et al., 2010; Hudson, et al., 2020). This suggests that the positive interactions found in satisfying relationships lead to better well-being in the partners involved. Thereby, underlining the importance of romantic relationships and their quality in the lives of most people.

Fifthly, no significant effect of LGBTQ+ membership on relationship satisfaction was found. This indicates that one's LGBTQ+ membership does not make experiencing lower satisfaction in relationships more likely. Initially, a negative effect was suspected which can be based on the experiences of minority stress and social stigma surrounding queer relationships (i.e., relationships including one or more partners of a sexual and/or gender minority). Several studies reported a significant negative effect of such experiences on relationships satisfaction or relationship quality (e.g., Frost & Meyer, 2009; Gamarel, Reisner, Laurenceau, Nemoto, & Operario, 2014). However, the protective factor that same-gender relationships have in young adults may have cancelled out the effect of such stressors in the current study (Baumeister, et al., 2010).

Sixthly, the rejection of the sixth hypothesis indicates that the interaction effect of LGBTQ+ membership and relationship origin does not significantly influence the satisfaction one experiences in a relationship. Consequently, online dating appears to be as good of an option as meeting one's partner/s offline, for both LGBTQ+ individuals and those who are not.

Lastly, the partial rejection of the seventh hypothesis suggests that the effect of a relationships origin on its satisfaction is only indirectly affected in LGBTQ+ individuals. The increase in mean satisfaction between offline and online dating is more pronounced in LGBTQ+ people (Figure 4). This effect has not been studied in published articles yet, which is why there is little information to ground this in research. However, a study from Sommantico, De Rose, and Parrello (2018) indicates that lower social support and not being out to family, friends, or the world in general is correlated with lower relationship satisfaction. One possible factor that may explain this discrepancy is the level of discrimination that participants of the studies experience. Sommantico et al. (2018) conducted their study in Italy in which 75 per cent of the population wanted homosexuality to be accepted in society (Poushter & Kent, 2020). In contrast, most participants of the current study lived in Germany,

where 86 per cent of inhabitants support the acceptance of homosexuality (Poushter & Kent, 2020). It may be reasonable, then, to question whether a LGBTQ+ person's experience with homophobia (internalised or experienced) could act as a covariate variable and offer a clearer insight into this relationship.

Study Limitations

In an attempt to evaluate the current study in more detail, a selection of its advantages and limitations will be discussed in the following.

One advantage of the current study is the more than sufficient sample size. When overestimating the possible population size, setting the confidence level to 95 percent, and choosing a confidence interval of seven, the sample size formula would estimate a minimum of 196 participants. This is exceeded in the current study, which allows for more precision in the calculations and for more reliability of the conclusions drawn in the study (Babbie, 2016).

Additionally, the internal consistency of the used scales is estimated to be very good. This increases the reliability of the results of this study. Lastly, LGBTQ+ people are not underrepresented in the sample. While the groups are not of equal size, the percentage of LGBTQ+ participants, exceeds the estimated 16 per cent of LGBTQ+ people aged 14 – 29 in Europe (Deveaux, 2016).

When considering the limitations of this study, the first major disadvantage that comes to mind would be its correlational nature. The problem this poses is that the direction of effects cannot be assumed (Black, 2002). This means for instance, that well-being may not be affected by a relationship satisfaction, but people who have higher well-being are more so able to invest the time and effort into a relationship that is necessary to make it satisfactory. What this depicts is that correlational studies do not allow for assumptions of causality (Black, 2002).

Furthermore, the violations of the linearity assumption and the negative skew of the satisfaction score distribution necessitates further caution in the interpretation and consequent inferences drawn from the current study. The violation of the linearity assumption poses both problem for the predictive power of the model as well as for the inferences that can be drawn for the population (Alabanza, 2020). As for the non-normality of the satisfaction score distribution, this violation is generally not known to decrease reliability of results (Glass, Peckham, & Sanders, 1972). However, since most participants reported the highest satisfaction score possible, the satisfaction sub-scale of the Investment Model Scale offers little information to make distinctions between people who are satisfied in their relationship. Consequently, the information that the current study makes available about highly satisfied

individuals is limited as well.

Moreover, like many other psychological studies, a convenience sample was employed. Consequently, the sample does not perfectly portray the population it is supposed to represent. This opens the study up to the effect of several biases, most commonly the WEIRD bias (Western, educated, industrialised, rich, democratic bias; Nielsen, Haun, Kärtner, & Legare, 2017). This sampling bias overrepresents the group of people described in its name in over 90 per cent of psychological research. This limits the way in which psychological findings can be applied in other contexts across the globe (Nielsen et al., 2017). In the current study this can be attributed to the use of the Sona System of the University of Twente, which made the study available to other psychology students at the University. This sampling method also led to an underrepresentation of men in the sample of this study, since only one fourth of psychology students identify as men in 2018 (Fowler, 2018). Consequently, this allows for less inference to be drawn about the effects of online dating on well-being.

Directions for future research

Future studies into this field might focus more on the role of commitment as a grouping variable when considering the effect of relationship origin on relationship satisfaction. When comparing low commitment relationship forms (i.e., dating, talking stages, etc.) with higher commitment relationship forms (i.e., cohabiting, engaged, married, etc.), the effect of relationship origin could become more visible. In doing so, one may account for the discrepancy between the non-significance of relationship origin as a predictor of relationship satisfaction and the results of other studies that found a significant association between these variables (Portaca, 2020). Thereby offering important insights into the effectiveness of different dating venues for building satisfactory relationships. Additionally, investigating the influence of online dating on queer relationships may be made more insightful by including experiences of homophobia or stigma in a study design. The current study already found a significant indirect effect of LGBTQ+ membership on relationship satisfaction and well-being. Controlling for experience of minority stress or including them as a possible moderator may offer several insights. For instance, whether people who experienced more homophobia-related instances are more likely to use one type of dating venue over another or whether the stress of such experiences may affect a relationships quality (Frost & Meyer, 2009; Gamarel, et al., 2014).

Additionally, previous research would benefit from conducting some form of pilot study. In doing so the research has the opportunity to investigate whether the multiple

regression assumptions have been met. Consequently, non-normal distributed scores of a certain concept may be measured with a scale that enables a higher level of differentiation. Moreover, gathering participants through simple random sampling would allow for more accurate inferences to be drawn about the general population. Thereby, avoiding the issue of non-presentiveness for certain groups (i.e., men and non-western individuals) that emerged in this study. This is, however, rarely feasible for online surveys since e-mail addresses of the general population are usually not available (Fricker, 2008). One option would, therefore, be to conduct the study via an interview and use the random digit dialling approach, which as its name suggests approaches participants by calling randomly generated phone numbers. When using this sampling method, any person with a phone has the same probability of being asked to participate (Fricker, 2008).

Conclusion

Overall, the current study managed to offer insights into a more complex model of understanding the influence of online dating on well-being and relationship satisfaction that also considers the influence of LGBTQ+ membership. Two significant effects were found. For one, relationship satisfaction appears to have a positive effect on a person's well-being. Secondly, LGBTQ+ membership seems to act as a moderator of the effect of relationship origin on relationship satisfaction. Furthermore, being in a relationship that originated on an online dating app did not significantly affect a person's well-being or relationship satisfaction. Similarly, relationship satisfaction was also not significantly predicted through LGBTQ+ membership.

In drawing to a close, it becomes apparent that more research is needed to gain a more detailed understanding of the changing dating landscape and its effect on human well-being. The quickly evolving nature of online dating makes this topic particularly important to those who want to study interpersonal relationships and those wanting to further human flourishing. Especially, LGBTQ+ people could benefit from their inclusion in this research since many of them are rarely offered other options to find romantic relationships in a safer and more convenient way. Thereby emphasising the importance of this research and its possible applications.

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Appendix A

Back-Translation of the Investment Model scale items

In order to find a translation that is sensitive to the cultural differences and linguistic properties of the scale, the back-translation method was chosen. In this method one person translates the original items into the desired language, focussing on meaning more so than wording. This translation is then given to a bilingual person who then translates the initial translation back into the original language, this is called the back translation. Following this step comes the comparison of the original version of the items and the back-translation. Then any differences in meaning or points of confusion are discussed until the final version of the translation does not lead to anymore uncertainty.

Table 1

Back translation protocol of the commitment sub-scale of the Investment Model scale

Item	Original version	Initial translation	Back-translation	Final version
Item 1	I want our relationship to last for a very long time.	Ich möchte, dass unsere Beziehung sehr lange hält.	I want that our relationship lasts long/ for a long time.	Ich möchte, dass unsere Beziehung sehr lange hält.
Item 2	I am committed to maintaining my relationship with my partner.	Ich fühle mich dem Erhalt meiner Beziehung zu meinem Partner verbunden.	I feel committed to the relationship with my partner	Ich fühle mich dem Fortbestand der Beziehung zu meinem Partner verpflichtet
Item 3	I would not feel very upset if our relationship were to end in the near future.	Ich wäre nicht sonderlich bestürzt, würde meine Beziehung in der nahen Zukunft enden.	I would not be particularly devastated, if my relationship ended in the near future/soon.	Ich wäre nicht sonderlich bestürzt, würde meine Beziehung in der nahen Zukunft enden

Item 4	It is likely that I will date someone other than my partner within the next year	Es ist wahrscheinlich, dass ich im Laufe des Jahres, jemanden anderen als meinen Partner date.	It is likely, that I will date another person than my current partner during/in this year.	Es ist wahrscheinlich, dass ich im Laufe des Jahres jemanden anderen als meinen Partner date.
Item 5	I feel very attached to our relationship-very strongly linked to my partner.	Ich fühle eine tiefe Verbundenheit zu meinem Partner/ unserer Beziehung.	I feel a deep connection to my partner/our relationship.	Ich fühle eine tiefe Verbundenheit zu meinem Partner/ unserer Beziehung
Item 6	I want our relationship to last forever.	Ich möchte, dass unsere Beziehung ewig hält.	I want that our relationship lasts forever	Ich möchte, dass unsere Beziehung ewig hält.
Item 7	I am oriented toward the long-term future of my relationship (for example, I imagine being with my partner several years from now).	Ich ziele mit meinem Partner eine langjährige Beziehung an (zum Beispiel, ich stelle mir vor mit meinem Partner in mehreren Jahren noch zusammen zu sein).	I aim for a long-standing relationship with my partner (for example, I imagine to be still together with my partner after a couple of years).	Ich strebe mit meinem Partner eine langjährige Beziehung an (zum Beispiel, ich stelle mir vor mit meinem Partner in mehreren Jahren noch zusammen zu sein)

Table 2

Back translation protocol of the satisfaction sub-scale of the Investment Model scale

Item	Original version	Initial translation	Back-translation	Final version
Item 1	My partner fulfills my needs for intimacy (sharing personal thoughts, secrets, etc.)	Mein Partner erfüllt mein Bedürfnis nach Intimität (persönliche Gedanken, Geheimnisse, etc. teilen)	My partner fulfills my needs for intimacy (to share personal thoughts, secrets, etc.)	Mein Partner erfüllt mein Bedürfnis nach Intimität (persönliche Gedanken, Geheimnisse, etc. teilen)
Item 2	My partner fulfills my needs for companionship (doing things together, enjoying each other's company, etc.)	Mein Partner erfüllt mein Bedürfnis nach Kameradschaft (Zusammen Sachen machen, die Gesellschaft des anderen genießen, etc.)	My partner fulfills my need for companionship (doing things together, enjoying each other's company, etc.)	Mein Partner erfüllt mein Bedürfnis nach Kameradschaft (Gemeinsam Aktivitäten durchführen, die Gesellschaft des anderen genießen, etc.)
Item 3	My partner fulfills my sexual needs (holding hands, kissing, etc.)	Mein Partner erfüllt meine sexuellen Bedürfnisse (Händchen halten, küssen, etc.)	My partner fulfills my sexual needs (holding hands, kissing, etc.)	Mein Partner erfüllt meine sexuellen Bedürfnisse (Händchen halten, küssen, etc.)
Item 4	My partner fulfills my needs for security (feeling trusting, comfortable)	Mein Partner erfüllt mein Bedürfnis nach Sicherheit (sich vertrauen, sich	My partner fulfills my security needs (to trust each other, to feel comfortable)	Mein Partner erfüllt mein Bedürfnis nach Sicherheit (sich vertrauen, sich

	in a stable relationship, etc.)	geborgen in einer stabilen Beziehung fühlen, etc.)	in a stable relationship, etc.)	geborgen in einer stabilen Beziehung fühlen, etc.)
Item 5	My partner fulfills my needs for emotional involvement (feeling emotionally attached, feeling good when another feels good, etc.)	Mein Partner erfüllt mein Bedürfnis nach emotionalem Engagement (sich emotional verbunden fühlen, sich gut fühlen, wenn es auch der andere tut, etc.)	My partner fulfills my needs for emotional involvement (feeling emotionally attached, feeling good when the other does etc.)	Mein Partner erfüllt mein Bedürfnis nach emotionalem Engagement (sich emotional verbunden fühlen, sich gut fühlen, wenn es auch der andere tut, etc.)
Item 6	I feel satisfied with our relationship.	Ich fühle mich zufrieden mit unserer Beziehung	I feel content/happy in our relationship	Ich fühle mich zufrieden mit unserer Beziehung.
Item 7	My relationship is much better than others' relationships.	Meine Beziehung ist um einiges besser als die vieler Anderer.	My relationship is a lot better than those of many other people	Meine Beziehung ist um einiges Besser als die vieler anderer.
Item 8	My relationship is close to ideal.	Meine Beziehung ist nahezu ideal.	My relationship is almost ideal/perfect.	Meine Beziehung ist nahezu ideal.
Item 9	Our relationship makes me very happy.	Unsere Beziehung macht mich sehr glücklich.	Our relationship makes me very happy.	Unsere Beziehung macht mich sehr glücklich.

Item	Our relationship does	Unsere	Our relationship is	Unsere
10	a good job of fulfilling my needs for intimacy, companionship, etc.	Beziehung ist gut darin meine Bedürfnisse nach Intimität, Kameradschaft, etc. zu erfüllen.	good for fulfilling my needs for intimacy, companionship, etc.	Beziehung ist gut darin meine Bedürfnisse nach Intimität, Kameradschaft, etc. zu erfüllen.

Appendix B
Inter-Item-Correlations

In order to ensure the validity of the scales used in this study, the inter-item-correlation for both the original version and the translated version of both scales was calculated.

Table 1

Inter-item-correlation of the satisfaction subscale of the Investment Model Scale

Item	Corrected Inter-Item-Correlation	Cronbach's Alpha, when item deleted
1. I feel satisfied with our relationship	.82 (.80)	.87 (.85)
2. My relationship is much better than others' relationships	.61 (.64)	.92 (.92)
3. My relationship is close to ideal	.76 (.82)	.89 (.87)
4. Our relationship makes me very happy	.85 (.84)	.87 (.87)
5. Our relationship does a good job at fulfilling my needs for intimacy, companionship, etc.	.82 (.81)	.88 (.88)
All items		.91 (.91)

Note. Values in brackets indicate the values for the German translation

Table 2

Inter-item-correlation of the Mental Health Continuum – Short Form

Item	Corrected Inter-Item-Correlation	Cronbach's Alpha, when item deleted
1. happy	.58 (.60)	.90(.87)
2. interested in life	.68 (.59)	.90 (.87)
3. satisfied with life	.77 (.62)	.90 (.87)

4. that you had something important to contribute to society	.61 (.46)	.90 (.88)
5. that you belonged to a community (like a social group, or your neighbourhood)	.55 (.51)	.91 (.88)
6. that our society is a good place, or is becoming a better place, for all people	.58 (.40)	.90 (.88)
7. that people are basically good	.50 (.44)	.91 (.88)
8. that the way our society works make sense to you	.54 (.41)	.91 (.88)
9. that you liked most parts of your personality	.70 (.73)	.90 (.86)
10. good at managing the responsibilities of your daily life	.68 (.63)	.90 (.87)
11. that you had warm and trusting relationships with others	.60(.55)	.90 (.87)
12. that you had experiences that challenges you to grow and become a better person	.47 (.63)	.91 (.87)
13. confident to think or express your own ideas and opinions	.65 (.56)	.90 (.87)
14. that your life has a sense of direction or meaning to it	.80 (.71)	.89(.86)
All items		.91 (.88)

Note. Values in brackets indicate the values for the German translation

Appendix C

Opening Statement in English and German

You are being invited to participate in a research study titled Romantic relationships in an era of online dating. This study is being done by Anna Kirchhoff, Jedidjah Schaaïj and Kimberly Gerlach from the Faculty of Behavioural, Management and Social Sciences at the University of Twente. The purpose of this research study is to get new insights into online dating and romantic relationships and their effects on well-being, and will take you approximately 10 minutes to complete. At first, you will be asked to answer demographical questions. Then, we would like you to answer a few questions about your relationship and your well-being. The data will be used for a statistical analysis in the context of our Bachelor thesis. The data will be used for purposes of this research only and will be collected anonymously. This means that neither we, nor anyone else, will be able to personally identify your data. All analysis will be performed at a group level, meaning that no inferences can be drawn about you specifically. Your participation in this study is entirely voluntary and you can withdraw at any time. You can withdraw by simply closing your browser window or tab. All data gathered up to that point will be deleted. You are free to omit any question. We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. To the best of our ability your answers in this study will remain confidential. We will minimize any risks by storing your data anonymously on Qualtrics servers. Any copies of this data will be stored with password protection.

Study contact details for further information:

Sie werden eingeladen, an einer Forschungsstudie mit dem Titel "Romantische Beziehungen im Zeitalter des Online-Datings" teilzunehmen. Diese Studie wird von Anna Kirchhoff, Jedidjah Schaaïj und Kimberly Gerlach von der Faculty of Behavioural, Management and Social Sciences an der University of Twente durchgeführt.

Der Zweck dieser Forschungsstudie ist es, neue Erkenntnisse über Online-Dating und romantische Beziehungen und deren Auswirkungen auf das Wohlbefinden zu gewinnen. Sie werden etwa 10 Minuten brauchen, um den Fragebogen auszufüllen. Zunächst werden Sie gebeten, demographische Fragen zu beantworten. Dann möchten wir Sie bitten, einige Fragen

zu Ihrer Beziehung und Ihrem Wohlbefinden zu beantworten. Die Daten werden für eine statistische Auswertung im Rahmen unserer Bachelorarbeiten verwendet.

Die Daten werden nur für die Zwecke dieser Forschung verwendet und anonymisiert erhoben. Das bedeutet, dass weder wir noch andere Personen in der Lage sein werden, Ihre Daten auf Sie zurückführen zu können. Alle Analysen werden auf einer Gruppenebene durchgeführt, d.h. es können keine Rückschlüsse auf Ihre Person gezogen werden.

Ihre Teilnahme an dieser Studie ist vollkommen freiwillig und Sie können diese jederzeit beenden. Sie haben die Möglichkeit, die Studie abbrechen, indem Sie einfach Ihr Browserfenster oder Ihren Tab schließen. Alle bis dahin gesammelten Daten werden dann gelöscht. Es steht Ihnen frei, Fragen auszulassen.

Wir gehen davon aus, dass es keine bekannten Risiken im Zusammenhang mit dieser Forschungsstudie gibt; wie bei allen Online-Aktivitäten ist jedoch das Risiko eines Verstoßes immer möglich. Nach bestem Wissen und Gewissen werden Ihre Antworten in dieser Studie vertraulich behandelt. Wir werden jegliche Risiken minimieren, indem wir Ihre Daten anonym auf den Qualtrics-Servern speichern. Alle Kopien dieser Daten werden passwortgeschützt gespeichert.

Kontaktdetails der Studie für weitere Informationen:

Appendix D

Informed consent form in English and German

After reading the opening statement:- I confirm that I am over the age of 18 and can consent to take part in the study myself- I have read the information sheet and fully understand what the study entails and why it is being conducted- I understand that the researchers will be able to access my data, however, the data will remain anonymous- I agree to take part in this study, understanding what it involves- I understand I can withdraw my data at any time by closing the browser

Once the data has been submitted, the data will not be able to be removed due to the data being anonymous.

By clicking on the “Yes” option you indicate that you have read and understood the consent form above and choose to participate in this study on your own free will.

Yes (1)

No (2)

Nach dem Lesen der Eröffnungserklärung:- bestätige ich, dass ich über 18 Jahre alt bin und selbst in die Teilnahme an der Studie einwilligen kann- ich habe das Informationsblatt gelesen und verstehe vollständig, was die Studie beinhaltet und warum sie durchgeführt wird- ich verstehe, dass die Forscher auf meine Daten zugreifen können, die Daten jedoch anonym bleiben- ich bin damit einverstanden, an dieser Studie teilzunehmen und verstehe, was sie beinhaltet- ich verstehe, dass ich meine Daten jederzeit durch Schließen des Browsers zurückziehen kann.

Sobald die Daten übermittelt wurden, können sie nicht mehr entfernt werden, da die Daten anonym bleiben.

Durch Anklicken der Option "Ja" geben Sie an, dass Sie die obige Einverständniserklärung gelesen und verstanden haben und sich aus freiem Willen für die Teilnahme an dieser Studie entscheiden.

Ja (1)

Nein (2)

Appendix E**Questions about demographics and relationship information in English and German**

Please, indicate your age below.

Bitte geben Sie Ihr Alter an.

Please, disclose your nationality below.

Dutch (1)

German (2)

Other (3) _____

Bitte geben Sie Ihre Nationalität an.

- Niederländisch (1)
- Deutsch (2)
- Andere (3) _____

Please indicate the gender you were assigned at birth.

- Male (1)
- Female (2)
- Prefer to self disclose (3) _____
- No gender was assigned (4)
- Prefer not to say (5)

Bitte geben Sie Ihr bei der Geburt eingetragenes Geschlecht an.

- Männlich (1)
- Weiblich (2)
- divers (3) _____
- Es wurde nichts eingetragen (4)
- Bevorzuge, es nicht zu sagen (5)

Please choose the gender you currently identify as.

- Male (1)
- Female (2)
- Non-binary (3)
- Prefer to self disclose (4) _____
- Prefer not to say (5)

Bitte geben Sie Ihre jetzige Geschlechtsidentität an.

- Weiblich (1)
- Männlich (2)
- Non-binär (3)
- Bevorzuge eine Selbstbezeichnung (4)

- Bevorzuge, es nicht zu sagen (5)

Please disclose your sexuality below.

- Heterosexual (1)
- Homosexual (2)
- Bisexual (3)
- Pansexual (4)
- Prefer to self disclose (5) _____
- Prefer not to say (6)

Bitte geben Sie unten Ihre Sexualität an.

- Heterosexuell (1)
- Homosexuell (2)
- Bisexuell (3)
- Pansexuell (4)
- Bevorzuge eine Selbstbezeichnung (5)

- Bevorzuge, es nicht zu sagen (6)

How would you describe your current relationship status?

- Single (1)
- Dating (2)
- Hook-up relationship (sexual encounters between two people without a serious relationship) (3)
- Friends-with-benefits (casual sex between friends without romantic emotions) (4)
- In a relationship (5)
- Cohabiting with my romantic partner(s) (6)
- Married (7)
- Prefer to self disclose (8) _____

Wie würden Sie Ihren aktuellen Beziehungsstatus beschreiben?

- Single (1)
- Dating (2)
- Hook-up relationship (sexuelle Begegnungen zwischen zwei Personen ohne romantische Beziehung) (3)
- Freundschaft Plus (Gelegenheitssex zwischen Freunden ohne romantische Gefühle) (4)
- In einer Beziehung (5)
- Zusammenlebend (6)
- Verheiratet (7)
- Bevorzuge eine Selbstbezeichnung (8) _____

Considering the type of relationship status you chose above, how long have you been with that person/ with these people? (When you have multiple partners, please indicate for the longest relationship)

Less or one year (please, indicate how many months) (1)

Longer than a year (please, indicate how many years) (2)

In Anbetracht der Art des Beziehungsstatus, den Sie oben gewählt haben, wie lange sind Sie schon mit dieser Person/ mit diesen Personen zusammen? (Wenn Sie mehrere Partner haben, bitte geben Sie die längste Beziehung an)

Bis zu einem Jahr (bitte geben Sie an, wieviele Monate) (1)

Länger als ein Jahr (bitte geben Sie an, wieviele Jahre) (2)

How did you meet your partner(s)?

Offline (1)

Online on an online dating platform (2)

Online through social media platforms (3)

Wie haben Sie diese Person kennengelernt?

Offline (1)

Online auf einer Online-Dating-Plattform (2)

Online über Social-Media-Plattformen (3)

Appendix F
SPSS Syntax of the Analysis

Computing variables

```
COMPUTE trans=gender - gaab.  
  
RECODE sexuality (1=0) (ELSE=1) INTO LGBQ.  
  
VARIABLE LABELS LGBQ 'het or no'.  
  
COMPUTE LGBTQ=trans + LGBQ.  
  
RECODE LGBTQ (0=0) (ELSE=1).
```

Inter-Item correlation

```
SORT CASES BY language.  
  
SPLIT FILE SEPARATE BY language.  
  
DATASET ACTIVATE DataSet1.  
  
RELIABILITY  
  
    /VARIABLES=sa_g_1 sa_g_2 sa_g_3 sa_g_4 sa_g_5  
  
    /SCALE('ALL VARIABLES') ALL  
  
    /MODEL=ALPHA  
  
    /SUMMARY=TOTAL.  
  
RELIABILITY  
  
    /VARIABLES=wb_1 wb_2 wb_3 wb_4 wb_5 wb_6 wb_7 wb_8 wb_9  
wb_10 wb_11 wb_12 wb_13 wb_14  
  
    /SCALE('ALL VARIABLES') ALL  
  
    /MODEL=ALPHA  
  
    /SUMMARY=TOTAL.  
  
SPLIT FILE OFF.
```

Computing mean scores

```
COMPUTE satisfaction=MEAN(sa_g_2,sa_g_3,sa_g_4,sa_g_5).
```

```
COMPUTE
```

```
wellbeing=MEAN(wb_1,wb_2,wb_3,wb_4,wb_5,wb_6,wb_7,wb_8,wb_9,
wb_10,wb_11,wb_12,wb_13).
```

Assumption-checking

```
REGRESSION
```

```
  /DESCRIPTIVES MEAN STDDEV CORR SIG N
```

```
  /MISSING LISTWISE
```

```
  /STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
```

```
  /CRITERIA=PIN(.05) POUT(.10)
```

```
  /NOORIGIN
```

```
  /DEPENDENT wellbeing
```

```
  /METHOD=ENTER satisfaction LGBTQ origin
```

```
  /SCATTERPLOT=(*ZRESID ,*ZPRED)
```

```
  /RESIDUALS NORMPROB(ZRESID)
```

```
  /CASEWISE PLOT(ZRESID) OUTLIERS(3)
```

```
  /SAVE COOK.
```

Screening for outliers

```
EXAMINE VARIABLES= wellbeing satisfaction
```

```
  /PLOT BOXPLOT
```

```
  /STATISTICS DESCRIPTIVES
```

```
  /CINTERVAL 95
```

```
  /MISSING LISTWISE
```

```
  /NOTOTAL
```

Log10 transformation

```
COMPUTE log10_satisfaction=LG10(satisfaction).
```

Descriptive Analysis

```
EXAMINE VARIABLES= wellbeing log10_satisfaction
```

```
  /PLOT BOXPLOT
```

```
  /STATISTICS DESCRIPTIVES
```

```
  /CINTERVAL 95
```

```
  /MISSING LISTWISE
```

```
  /NOTOTAL.
```

Bivariate correlation analysis

```
CORRELATIONS
```

```
  /VARIABLES=LGBTQ origin log10_satisfaction wellbeing
```

```
  /PRINT=TWOTAIL NOSIG FULL
```

```
  /STATISTICS DESCRIPTIVES
```

```
  /MISSING=PAIRWISE.
```

Additional linear regression analysis

```
REGRESSION
```

```
  /MISSING LISTWISE
```

```
  /STATISTICS COEFF OUTS R ANOVA
```

```
  /CRITERIA=PIN(.05) POUT(.10)
```

```
  /NOORIGIN
```

```
  /DEPENDENT log10_satisfaction
```

```
  /METHOD=ENTER origin.
```

