Social Inclusion
2024 • Volume 12 • Article 8426
https://doi.org/10.17645/si.8426

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Open Access Journal

The Mediating Role of Neighborhood Networks on Long-Term Trajectories of Subjective Well-Being After Covid-19

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Submitted: 12 April 2024 **Accepted:** 22 July 2024 **Published:** 25 September 2024

Issue: This article is part of the issue "Neighborhood Residents in Vulnerable Circumstances: Crisis, Stress, and Coping Mechanisms" edited by Peer Smets (Vrije Universiteit Amsterdam) and Pekka Tuominen (University of Helsinki), fully open access at https://doi.org/10.17645/si.i405

Abstract

We investigate the trajectories of people's subjective well-being, measured as their overall life satisfaction at five points in time before, during, and after Covid-19 in Switzerland. Using sequence analysis and hierarchical clustering, we identify three groups of typical trajectories. About half of all respondents experienced a decline in well-being right after the first lockdown and subsequent recovery to high, pre-pandemic levels. A quarter consistently reports very high satisfaction throughout all five waves, and another quarter experienced declining well-being since the outbreak of the pandemic. As a second contribution, we then demonstrate how improving relations with neighbors increases the likelihood of recovering from the negative impact of the pandemic on subjective well-being. This effect is largely constant across social groups. Conceptualizing vulnerability as the extent to which social groups with different endowments (e.g., financial situation or individual social networks) cope differently with (exogenous) stressors, we further find slightly more pronounced positive effects of improving neighborly relations during the pandemic for more vulnerable people in terms of household finances and education. Moreover, being able to count on emotional support from neighbors and friends prior to the pandemic generally guarded against experiencing declining well-being. Meanwhile, people with less financial means, poorer health, and less support from friends and neighbors are also more likely to be in the trajectory cluster of declining well-being.

Keywords

Covid-19; life satisfaction; neighborhood networks; sequence analysis; subjective well-being

1. Introduction

The Covid-19 pandemic and the measures to combat its spread, namely social distancing and stay-at-home orders, considerably impacted people's subjective well-being (SWB), that is, their overall satisfaction with life as well as their psychological affect and emotional state (Martinez et al., 2021; Möhring et al., 2021; Zacher & Rudolph, 2024). With limited possibilities for meeting friends and family, local surroundings and the immediate neighborhood became a focal point for people's social encounters and identities (Ungson et al., 2023). Likewise, sparked by the necessities arising from these restrictions, we witnessed an increase in neighborhood-based help initiatives to support members of the local community (Laurence & Kim, 2021; Terbeck et al., 2023; Zetterberg et al., 2021).

In line with evidence from previous crises (Aldrich & Meyer, 2015; LaLone, 2012; Schobert et al., 2023), localized social capital has been shown to mitigate the short-term negative impact of the pandemic on SWB (Laurence & Kim, 2021; Zangger, 2023). Meanwhile, little is known about the long-term impact of localized social capital on people's well-being and its role in post-crisis recovery. Moreover, disposable resources and networks before the pandemic, such as people's financial situation or their involvement in neighborhood, family, and friendship networks, influenced not only people's vulnerability to adverse effects but also the amount of localized social capital and support (Schobert et al., 2023; Zangger, 2023).

This article uses panel data from Switzerland to investigate the long-term trajectories of people's SWB before, during, and after Covid-19. SWB is generally conceptualized as comprising both positive and negative affect, as well as an overall assessment of people's life satisfaction (Diener, 2009). This study focuses on the role of changes in people's neighborhood networks and their effect on different trajectories of life satisfaction. What is more, we also investigate subgroup differences in both the overall trajectories and the buffering effect of localized social capital, focusing on vulnerable groups in terms of socio-economic position and health. In this regard, vulnerability is understood as both a condition as well as a process (Zarowsky et al., 2013), encompassing initial well-being, risk exposure, and how this risk is managed. Consequently, in the present context, vulnerability addresses how different social groups—concerning their resources (time, money) and social networks—cope with exogenous stressors of the Covid-19 pandemic.

The contribution of this article is thus twofold. First, we provide a unique assessment of the long-term effects of localized social capital on the trajectories of SWB in the wake of a global crisis. To this end, we apply sequence analysis and hierarchical clustering to five waves of panel data, including four yearly assessments at the end of each year from 2019 to 2022, as well as an additional wave of data collection right after the end of the first lockdown in Switzerland. Second, we evaluate the extent to which more vulnerable groups in terms of socio-economic resources and individual risk factors saw not only their well-being impacted more severely by the pandemic but also whether these effects persist.

2. Background

2.1. Vulnerability, Localized Social Capital, and Well-Being

Meta-analyses show that individual personality is one of the strongest predictors of SWB, explaining up to 39% of SWB variance (Steel et al., 2008). Meanwhile, this still leaves enough room for other individual and

contextual factors to play a role. Existing research on the determinants of SWB has focused on individual socio-economic resources on the one hand, and network and contextual influences on the other. Starting with the former, the individual economic situation has been shown to be positively related to SWB in a variety of contexts (Deeming, 2013; Salameh et al., 2022; Simona-Moussa, 2020). In addition, existing evidence also points to the importance of social comparison processes in terms of relative income. Noy and Sin (2021), for example, show how the ordinal income rank positively affects SWB: People who are rich in comparison to their coworkers are found to be happier.

Beyond income, other measures of people's socio-economic position are associated with SWB. People with higher education and in higher occupational positions generally report higher levels of SWB (Deeming, 2013; Hadjar & Backes, 2013; Salameh et al., 2022). This has been attributed to the availability of more cultural capital and cognitive know-how to satisfy needs and pursue well-being. However, such general associations do not always hold for specific subgroups (Venetoklis, 2019). Concerning one's migration background, first-generation migrants are disadvantaged in terms of SWB (Hadjar & Backes, 2013). Meanwhile, the magnitude of this effect differs among host countries, the duration of stay in that country, and the amount of available social capital (Hadjar & Backes, 2013; Tegegne & Glanville, 2019).

Various studies have found differences in SWB regarding age, gender, health, and geographic context. For age, many studies find a U-shaped relationship between age and SWB (Gonza & Burger, 2017; Hadjar & Backes, 2013; Tegegne & Glanville, 2019): As people grow older, they report lower levels of SWB, which increases again for the eldest age groups. Meanwhile, for gender, no consistent pattern has been observed. Some studies find higher SWB for women (Venetoklis, 2019), while others report no gender differences (Deeming, 2013). Most common, however, is the finding that men—and especially boys and young male adults—report higher levels of SWB (Hadjar & Backes, 2013; Marquez & Long, 2021). The association between SWB and health, on the other hand, is less contested. People who report (very) poor health are found to be more anxious, less happy, and report lower levels of SWB (Deeming, 2013; Hadjar & Backes, 2013; Salameh et al., 2022). Finally, regional characteristics also play a role, for example, through local institutions of the welfare state or the access to services and facilities that increase SWB (Deeming, 2013; Lee, 2021; Zangger, 2023).

A second line of evidence points to the importance of social networks and (localized) social capital. People mobilize resources, exchange information, and organize support through social networks (Lin, 1999). In this respect, close kin and family are an especially relevant source of SBW for young and old (Katz, 2009; Li & Cheng, 2015; Nguyen & Ryan, 2008). Generally, contact and support from family members are positively related to SWB, stressing the importance of the quality of social encounters over their quantity (Katz, 2009; Nguyen & Ryan, 2008). However, negative interactions with family members reduce SWB (Li & Cheng, 2015; Nguyen & Ryan, 2008).

Friends and neighbors matter as well. Again, rather than mere structural aspects of friendship networks, such as the frequency of contact, qualitative aspects of social ties are especially relevant (Bian et al., 2018; Fehr & Harasymchuk, 2017; Nguyen & Ryan, 2008). Friends provide instrumental and emotional support and positive experiences, and they can buffer the negative impact of crises and stress (Fehr & Harasymchuk, 2017). This also holds true for neighbors. People who interact frequently with their neighbors, who trust their neighbors, and who exchange more support are found to be more satisfied with life (Helliwell & Putnam, 2004; Yang et al., 2022; Zangger, 2023). Additionally, Noy and Sin (2021) find a positive social comparison effect on SWB:

People with a higher ordinal income rank within neighborhoods report higher levels of life satisfaction. Finally, summarizing existing work on the impact of using online social networks on SWB, Verduyn et al. (2017) show that actively using social media enhances SWB, while passive use is associated with lower levels of SWB.

2.2. Trajectories of SWB in the Wake of Crises

Economic, political, and natural crises drastically affect individual well-being in the short as well as in the long term. In this regard, the impact of the 2008 economic crisis is a well-studied case. Rising unemployment and economic insecurity led to a significant drop in people's SWB, followed by a post-crisis recovery (Ballas & Thanis, 2022; Sarracino & Piekałkiewicz, 2021; Welsch & Kühling, 2016). During this crisis, the importance of some correlates of SWB changed. Income gained importance during and right after the economic crisis, while the importance of people's social capital remained stable in many countries (Sarracino & Piekałkiewicz, 2021; Siposne Nandori, 2016). Studies looking at the impact of other crises, however, point to the particular importance of (localized) social capital in response to a crisis, alleviating the negative impact on people's SWB (Aldrich & Meyer, 2015; LaLone, 2012; Schobert et al., 2023).

The trajectories of SWB in the wake of the Covid-19 pandemic follow a similar pattern. Around the world, local and national lockdowns as well as social distancing orders led to a decrease in people's SWB (Martinez et al., 2021; Möhring et al., 2021; Zacher & Rudolph, 2024). Again, this decline in SWB was often followed by a recovery to pre-pandemic levels. Meanwhile, this general pattern does not hold for everyone. Zacher and Rudolph (2024), for example, find differences according to people's stress appraisal and coping strategies. Focusing on demographic factors, Möhring et al. (2021) show that women's satisfaction—especially in those without children—was more negatively affected. For young adults, Preetz et al. (2021) further demonstrate that financial strain, returning to the parental home, and limited peer contact were risk factors associated with negative changes in SWB during the pandemic. Meanwhile, studies also report buffering or even silver-lining effects of neighborhood networks and communal satisfaction on SWB (Guan et al., 2023; Zangger, 2023). Consequently, the impact of the pandemic on well-being seems to be alleviated by people's integration into (local) networks and community social capital.

2.3. The Present Study

The present study aims to combine the two perspectives outlined before by focusing on how changes in local social networks influence trajectories of SWB and how this effect varies according to individual risk factors. To this end, we identify typical patterns of SWB in the wake of Covid-19 in Switzerland. Since the quality of social ties is especially relevant for SWB (Bian et al., 2018; Fehr & Harasymchuk, 2017), we focus on changes in people's relations with neighbors. In times of social distancing and stay-at-home orders, neighbors became the prime resource many people counted on. While friends, family, and online networks generally matter for SWB as well, the restrictions put on people's daily lives during the pandemic confined their interactions to the local neighborhood environment (Miao et al., 2021). Based on existing literature (Zangger, 2023; Zetterberg et al., 2021), we expect that improving relations with neighbors is associated with a "recovering pattern" of SWB after the pandemic, while already having strong ties to friends and neighbors prior to the pandemic should more generally protect people against a decline in SWB. Given that individual resources and risk factors have been identified as crucial determinants of SWB (e.g., Hadjar & Backes, 2013), we further investigate how the effect of changing neighborly relations varies with individuals'

finances, education, health, gender, and migration background. Since people with less financial means, lower education, poorer health, and those who more recently migrated to Switzerland are expected to experience more severe declines in SWB, we hypothesize that they, in turn, more strongly benefit from improving relations with neighbors for recovering to pre-pandemic levels of SWB. To a lesser extent, this could also be the case for women whose SWB has been found to be more adversely affected by crises (Möhring et al., 2021). Having enough individual resources to cope with a crisis, people in more advantageous positions likely did not see their SWB affected that much and should in turn be more likely to depict a pattern of high and stable SWB in the wake of the Covid-19 pandemic.

3. Data & Methods

3.1. Data

This study uses five waves of data from the Swiss Household Panel (SHP), a yearly panel study comprising more than 5,000 households, and information on more than 10,000 individuals (Tillmann et al., 2022). The five waves included in this study comprise four regular waves of data collection (household and individual data), collected at the end of each year between 2019 and 2022, and a supplementary data collection during the early Covid-19 crisis. Data for the Covid-19 supplemental study were collected during May and June 2020, about one month after the end of the first lockdown in Switzerland (which lasted from March 16th until April 26th, 2020). During the first lockdown, several social distancing measures were taken. Schools and non-essential institutions such as restaurants were closed, and any social gathering exceeding five persons was prohibited. In contrast to the neighboring countries (France, Germany, and Italy), no curfews were introduced. Thereafter, restrictions were gradually eased, such as the re-opening of schools, shops, and restaurants by May 11th. By May 31st, 2021, public events with up to 300 people were allowed, while private social gatherings were restricted to a maximum of 50 people. Due to these restrictions, the supplementary data collection differed from regular waves in both scope and mode of collection. While the annual waves are collected by either computer-assisted telephone or personal interviewing, this Covid-19 study was conducted through a self-administered online and paper questionnaire (see also Tillmann et al., 2022). This resulted in a lower response rate of only 67%, in which men, young people, and foreigners were slightly less likely to participate.

Only respondents from the 2019 wave were invited to take part in the supplementary Covid-19 data collection. The 67% that returned the self-administered questionnaires correspond to 5,843 observations from 4,053 different households. Combining these data with data from the regular waves (2020 to 2022), we have a total of 4,699 observations with information on their SWB in all five waves. This drop in cases primarily represents panel attrition and only to a very minor degree item non-response (186 cases). The number of observations in the multivariate analyses further drops to 3,820 due to item non-response. Of the 879 cases with item non-response, 437 are attributable to people who do not know the number of contacts in their online social networks. An additional 385 cases have missing information on either housing type or duration of residence in Switzerland. The remaining 58 cases of item non-response are equally distributed over the other predictor variables.

3.2. Measures

To measure trajectories of SWB, this study uses people's assessment of their life satisfaction, measured on an 11-point scale (Schimmack et al., 2008). The single-item life satisfaction measure is broadly used in population-based surveys such as the German SOEP, the British Household Panel, and the Gallup World Poll, allowing for international comparability. It has proved to be a valid and reliable instrument yielding similar results as the five-item satisfaction with life scale (SWLS) developed by Diener et al. (1985) while keeping the participant burden low (Cheung & Lucas, 2014). Since we use sequence analysis to find typical trajectories, the original measure is reduced to a four-level scale, differentiating between people who are *very dissatisfied with life* (original value 0–3), *rather dissatisfied* (4–6), *rather satisfied* (7–8), and *very satisfied* (9–10). The unequal width is chosen to account for the heavily left-skewed original distribution. While grouping the measure makes it easier to visualize and analyze the different trajectories, it also makes it harder to detect small changes in people's SWB in the observed time window.

Our key independent variable is people's relationship with their neighbors. Every three years, the SHP collects data on people's friendships, relatives, online and neighborhood networks. In our case, this happened in 2019 and 2022. For both the neighborhood and friendship networks, the data comprise information on the number of neighbors and friends one has contact with, the contact frequency, and mobilized help through the network, respectively. We use the two items on the amount of emotional support from neighbors and friends in 2019 to account for baseline differences in people's neighborhood and friendship networks, ranging from 0 (*none at all*) to 10 (*a great deal*). Additionally, in the supplementary Covid-19 questionnaire, respondents were asked to what extent their relations with neighbors changed after the outbreak of the pandemic. This originally 11-point scale, ranging from 0, indicating that the relation deteriorated a lot, to 10, reflecting strongly improved neighborly relations, was recoded to a variable with three values: −1 if respondents reported deteriorating relations (original values 0–4), 0 if they assessed their relations with neighbors to be the same as prior to the pandemic (original value 5), and 1 if their relationship with neighbors improved (original values 6–10). The reason for recoding the original variable is attributable to the fact that about 70% of all respondents reported no change in relations with neighbors. Apart from the outlined neighborhood and friendship network items, the data also contain information on respondents' family and online networks. While friendships might have suffered from restricted contact possibilities and online networks became a more important source, the restrictions affected family networks less, particularly regarding family members in the same household. Moreover, including support from family members would significantly reduce the sample size due to item non-response. Consequently, we do not explicitly account for respondents' extended family network. Concerning people's online networks before the pandemic, we include the logarithm of people's reported size of their online social network, which is the only measure available for this type of network.

We assess people's socio-economic risk factors using three different measures. First, we use their subjective assessment of household finances prior to the pandemic as a measure of economic vulnerability. This measure differentiates between households that can save money, those that spend all they earn, and those who are living off their assets or getting into debt. Second, people's highest educational degree is used to capture people's access to different resources and networks. In this regard, our measure differentiates between people with at most compulsory schooling (nine years of schooling plus an additional two years of mandatory kindergarten), those with upper secondary education (having completed either a

post-compulsory vocational or general education), and people with tertiary education (graduates from universities and higher vocational education institutions). Third, we assess people's vulnerability to an immigration history based on their duration of residence in Switzerland, differentiating between people born in Switzerland, those residing in the country for 10 or more years, and people who have lived in the country for less than 10 years. Additionally, we also look at gender differences on the impact of changes in neighborly relations on SWB.

Finally, we account for people's subjective health using a five-point scale, Covid-infection during the pandemic, their age (both linearly as well as a squared term), occupational status, as well as housing type (differentiating between people living in an apartment building, a detached house, or another type of housing), residential mobility, and the community type according to the Swiss municipality typology (Bundesamt für Statistik, 2017). Descriptive statistics for all the variables included in the analyses can be found in Table A1 in the Supplementary File.

3.3. Methods

We use sequence analysis and hierarchical clustering to identify typical trajectories of SWB in the wake of Covid-19 (Raab & Struffolino, 2022; Ritschard & Studer, 2018). In the context of studying people's SWB, sequence analysis allows us to explore how individuals' well-being evolves over time, uncovering recurring sequences of states, as well as transitions between them. The individual sequences are then grouped into typical trajectories using cluster analysis that tries to minimize within-cluster and maximize between-cluster variance (Hennig et al., 2015). To do so, we need a measure to assess the similarity, or rather, dissimilarity of sequences. Different dissimilarity measures can be considered, for example, hamming distance, LCS, or optimal matching (Studer & Ritschard, 2016). In the present case, we opted for optimal matching with constant substitution costs and an indel parameter (time shift penalty) set at 1. Alternative distance measures and parameters yielded similar results. The computed distances are then taken as the basis for a hierarchical clustering approach with Ward's method to find compact clusters. To find the most suitable clustering solution, we compare the different clustering results using a wide range of quality measures (e.g., Point Biserial Correlation, Hubert's C, Pseudo R^2) that are included in the R library "WeightedCluster" (Studer, 2013).

Once we have obtained a statistically and theoretically valid cluster solution, we investigate differences in the trajectories of SWB by predicting the individual propensity of belonging to each typical group of well-being sequences (cluster of trajectories). To do so, we use a multinomial logistic regression model with the assigned cluster from the previous analytical step as the dependent variable and the measures described above as independent variables (Agresti, 2013). For easier interpretation, we calculate average marginal effects for all independent variables (Long, 1997). To investigate moderating effects, we plot the predicted probabilities for typical trajectories of SWB when interacting individual risk factors with changes in people's neighborhood social network. Doing so informs us on how the long-term effect of localized social capital on SWB differs among social groups.

4. Results

4.1. Trajectories of SWB in the Wake of Covid-19

We start our examination of people's SWB trajectories prior to, during, and "after" Covid-19 by examining the overall picture. In this regard, Figure 1 depicts the aggregated sequence states at each of the five points in time. While people's life satisfaction remains quite stable on the aggregated level, we note an increase of people who were (rather) not satisfied right after the first lockdown (green and purple segments in Figure 1). Meanwhile, the share of people who report being very satisfied (scoring 9 or 10 on the original scale) also increases during this time. That is, rather than a general decline in SWB, we find a heterogeneous, polarizing response to the pandemic.

In the next step, we build a typology of sequences that are as homogenous as possible while being as different as possible from each other. To this end, we use optimal matching to compute the dissimilarity between trajectories. This is followed by a hierarchical cluster analysis of the sequences using the previously calculated dissimilarities. Using Ward's D to minimize residual variance, we examined different clustering solutions, summarized by the corresponding quality criteria in Table A2 in the Supplementary File. Considering both quality measures (e.g., maximizing the point biserial correlation or minimizing Hubert's C) as well as theoretical considerations (i.e., the clusters should be interpretable), we opted for a solution with three clusters. While a solution with four clusters would be a slightly better fit to the data, it differs from the three-cluster solution only by adding an additional, very heterogeneous cluster with mixed sequences.

The solution with three clusters is depicted in Figure 2. The three clusters comprise distinct trajectories of people's SWB. The first cluster, consisting of 2,232 individuals, is characterized by people who were rather satisfied prior to the pandemic (2019 measurement), and who then reported a decline in SWB right after the first lockdown. However, their SWB gradually recovered after the pandemic. The second cluster of trajectories,

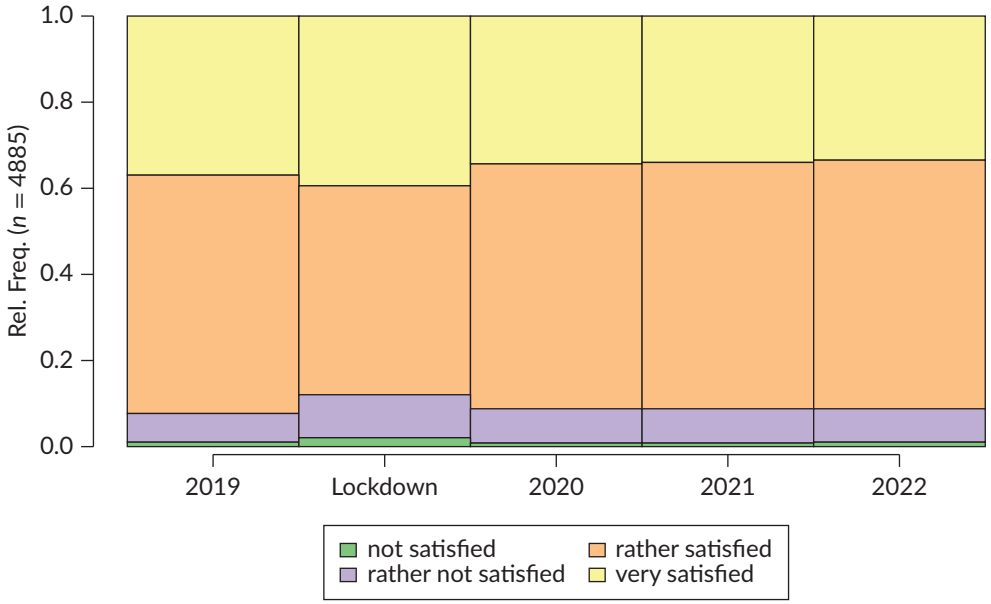

Figure 1. Overall state distribution of SWB over the five points in time under analysis.

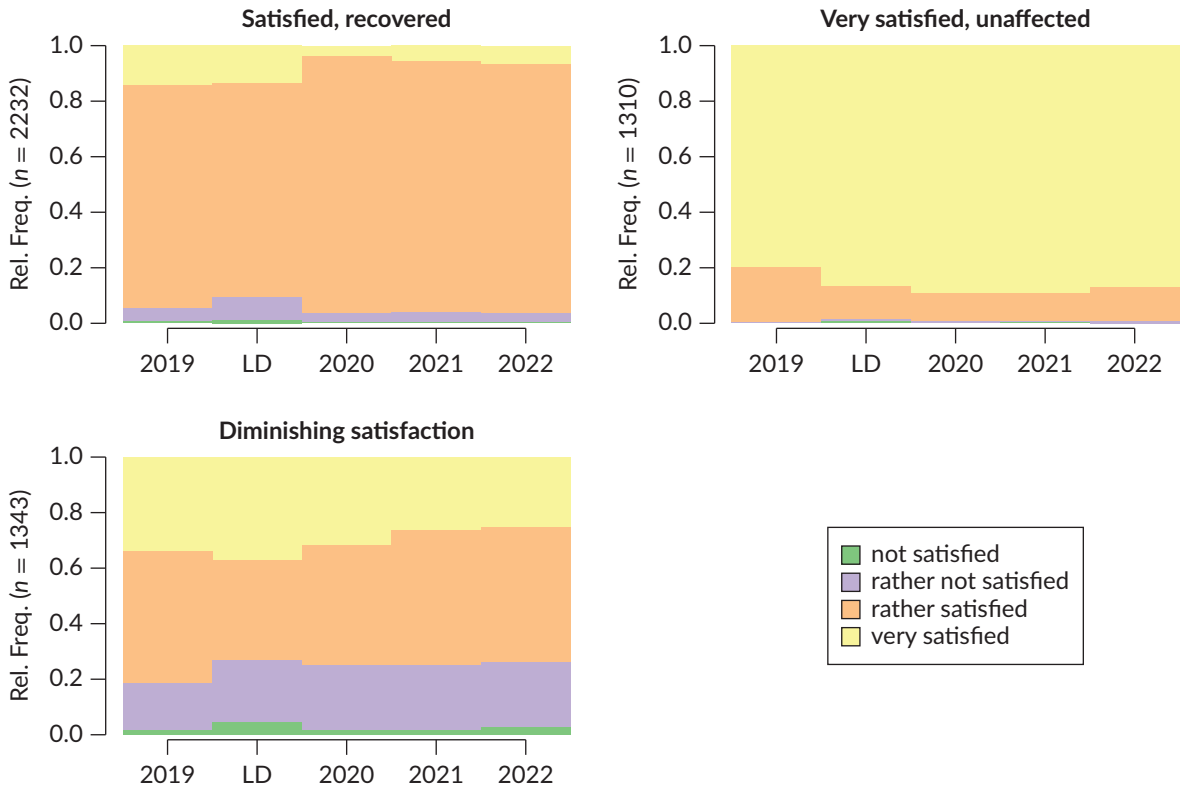

Figure 2. State distribution plot of the three-cluster solution after optimal matching and hierarchical clustering.

comprising 1,310 people, is characterized by very high levels of life satisfaction throughout the time window. These people did not see their SWB affected by the pandemic. Rather, they tend to report an increase in life satisfaction right after the first lockdown as well as in subsequent periods. The third cluster, on the other hand, is more heterogeneous. Since the share of people who are very satisfied continuously decreases in this cluster, it can thus best be described as comprising people whose SWB has been decreasing since the pandemic. This cluster comprises 1,343 people, slightly more than a quarter of all observations in the data.

4.2. Correlates of SWB Trajectories & Individual Vulnerabilities

In the next step, we predict cluster membership, that is, the grouping of typical SWB trajectories. In this respect, Table 1 depicts the result from a multinomial logistic regression model with cluster membership as the dependent variable. Coefficients represent average marginal effects, that is, the average change in the probability of belonging to the respective cluster for an increase in the covariate (Long, 1997). The first column comprises the average marginal effects for belonging to the group of trajectories with recovering SWB after the pandemic. The second column of Table 1 depicts the effects for belonging to the second cluster of trajectories, that is, people who constantly report high levels of well-being. Finally, the last column depicts the average marginal effects for reporting declining levels of SWB.

First, we note that improving relations with neighbors increases the probability of belonging to the cluster of recovery trajectories by about 3 percentage points. Likewise, it decreases the likelihood of belonging to the cluster with people whose SWB did not change during the pandemic by about the same amount. People who received a lot of emotional support from their neighbors and friends prior to the pandemic are more likely

Table 1. Predicting cluster membership of SWB trajectories (average marginal effects).

	Satisfied, recovered		Very satisfied, unaffected		Diminishing satisfaction	
Change relationship with neighbors	0.032*	(0.016)	−0.031*	(0.014)	−0.001	(0.015)
Emotional support from neighbors	0.001	(0.002)	0.006**	(0.002)	−0.007**	(0.002)
Emotional support from friends	−0.010**	(0.004)	0.018***	(0.003)	−0.008*	(0.003)
log(online network size)	0.002	(0.001)	−0.004***	(0.001)	0.002	(0.001)
Health	−0.128***	(0.012)	0.195***	(0.011)	−0.067***	(0.010)
Respondent's age	0.006*	(0.003)	−0.004	(0.002)	−0.002	(0.002)
Respondent's age^2	−0.000***	(0.000)	0.000***	(0.000)	0.000	(0.000)
Household finances						
HH spends what it earns	0.024	(0.018)	−0.042**	(0.016)	0.018	(0.016)
HH eats its assets or gets into dept	0.016	(0.028)	−0.089***	(0.022)	0.073**	(0.026)
Education						
Upper secondary education	0.033	(0.028)	−0.025	(0.025)	−0.008	(0.025)
Tertiary education	0.046	(0.030)	−0.052	(0.028)	0.006	(0.027)
Gender	−0.020	(0.016)	−0.014	(0.014)	0.033*	(0.015)
Years living in Switzerland						
Up to 10 years	−0.176*	(0.076)	0.073	(0.084)	0.103	(0.085)
More than 10 years	0.019	(0.019)	−0.038*	(0.016)	0.019	(0.017)
Housing type						
in a detached, semi-detached, or terraced house	−0.001	(0.017)	0.032*	(0.014)	−0.031*	(0.015)
in another type of house/apartment	−0.007	(0.042)	0.019	(0.036)	−0.012	(0.038)
Pseudo R^2	0.073					
Observations	3820					

Notes: Standard errors in parentheses; respondent's age^2 is included to account for nonlinear age effects; additionally controlled for household relocation, occupational status, community typology, Covid infection; reference levels: HH can save money, at most compulsory schooling, man, since birth, apartment in housing block; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

to report stable and very high levels of life satisfaction, increasing the likelihood of belonging to that cluster by 0.6 and 1.8 percentage points for each increase in the reported emotional support from neighbors and friends, respectively. Importantly, we found that the emotional support received from neighbors prior to the pandemic has no rebound effect on people's SWB (satisfied, recovered column): People who received more emotional support from neighbors prior to the pandemic are not more likely to belong to the cluster in which people's SWB dropped in the first phase of the pandemic, returning afterwards to pre-pandemic levels. Yet,

more emotional support from neighbors prior to the pandemic seems to generally protect against worsening trajectories of SWB (diminishing satisfaction column). Meanwhile, the number of contacts in online social networks has no clear discriminatory effect in the present case.

When it comes to individual risk factors, we note that—unsurprisingly—people's health is crucial: For each increase in subjective health on the 5-point scale, the likelihood of belonging to the group of highly satisfied people between 2019 and 2022 increases by about 19 percentage points. Note, however, that only 1% of all respondents describe their health as not well or worse. Age has a nonlinear effect: While the probability of belonging to the cluster of recovering SWB increases with age, the negative quadratic term (respondent's age^2) implies that this effect is attenuated with increasing age. Socio-economic resources also make a difference. Compared to people whose households can save money, those who spend what they earn or even get into debt are 4.2 and 8.9 percentage points less likely to show trajectories of high SWB over the observed time window. Conversely, people whose households tend to get into debt are 7.3 percentage points more likely to belong to the cluster of individuals who tend to see a decrease in their SWB. Gender also has a marginal impact: The probability of showing worsening trajectories of SWB is slightly higher for women than men. Duration of residence in Switzerland, however, is more clearly associated with diverging trajectories of SWB. Compared to people born in Switzerland, those who have been living in Switzerland for less than 10 years are 17.6 percentage points less likely to belong to the cluster of people whose life satisfaction recovered to high levels after the end of the pandemic. Finally, living in a (semi-)detached house is associated with a 3.2 percentage point increase in the probability of constantly showing very high levels of life satisfaction and a 3.1 percentage point decrease in the chance of belonging to the cluster of people experiencing diminishing satisfaction since the outbreak of the pandemic. The additional covariates controlled but not reported in Table 1 (namely, Covid-19 infection, occupational status, household relocation, and community typology) have no or no consistent effect on cluster membership. This also holds if we account for people's possibility for remote work rather than just their occupational status.

Having seen that improving relations with neighbors seems to mitigate the long-term negative impact of the pandemic on SWB and the importance of emotional support from neighbors and friends for stable trajectories of high levels of well-being more generally, the question remains to which extent this association also holds for more vulnerable groups. To this end, we interact the change in one's neighborhood network with respondents' financial situation, education, health, gender, and duration of residence in Switzerland. Based on each of these interaction terms, we then predict the probability of belonging to the first cluster of recovery trajectories. Figure 3 summarizes the interaction effects on these predicted probabilities.

Overall, the positive impact of improving relations with neighbors on the likelihood of belonging to the cluster of recovery trajectories of SWB is mostly constant. Nonetheless, the results in Figure 3 indicate that the most vulnerable in terms of socio-economic resources seem to have benefited slightly more from improving relations with neighbors during the pandemic: For people whose households tend to get into debt and for people with at most compulsory education, improving relations with neighbors seems to increase their chances of showing a recovering trajectory. Meanwhile, for those who can save money or have completed tertiary education, changes in their neighborhood network do not affect their likelihood of belonging to said cluster. This is contrasted by an opposite trend for people who more recently migrated to Switzerland (living less than 10 years in the country). This effect could reflect that this (small) group of people is more likely to experience overall declining levels of SWB (Table 1). Meanwhile, people in good

health are less likely to belong to the recovery cluster since they are much more likely to be found in the second cluster of people who never experienced a drop in life satisfaction but rather show very high levels

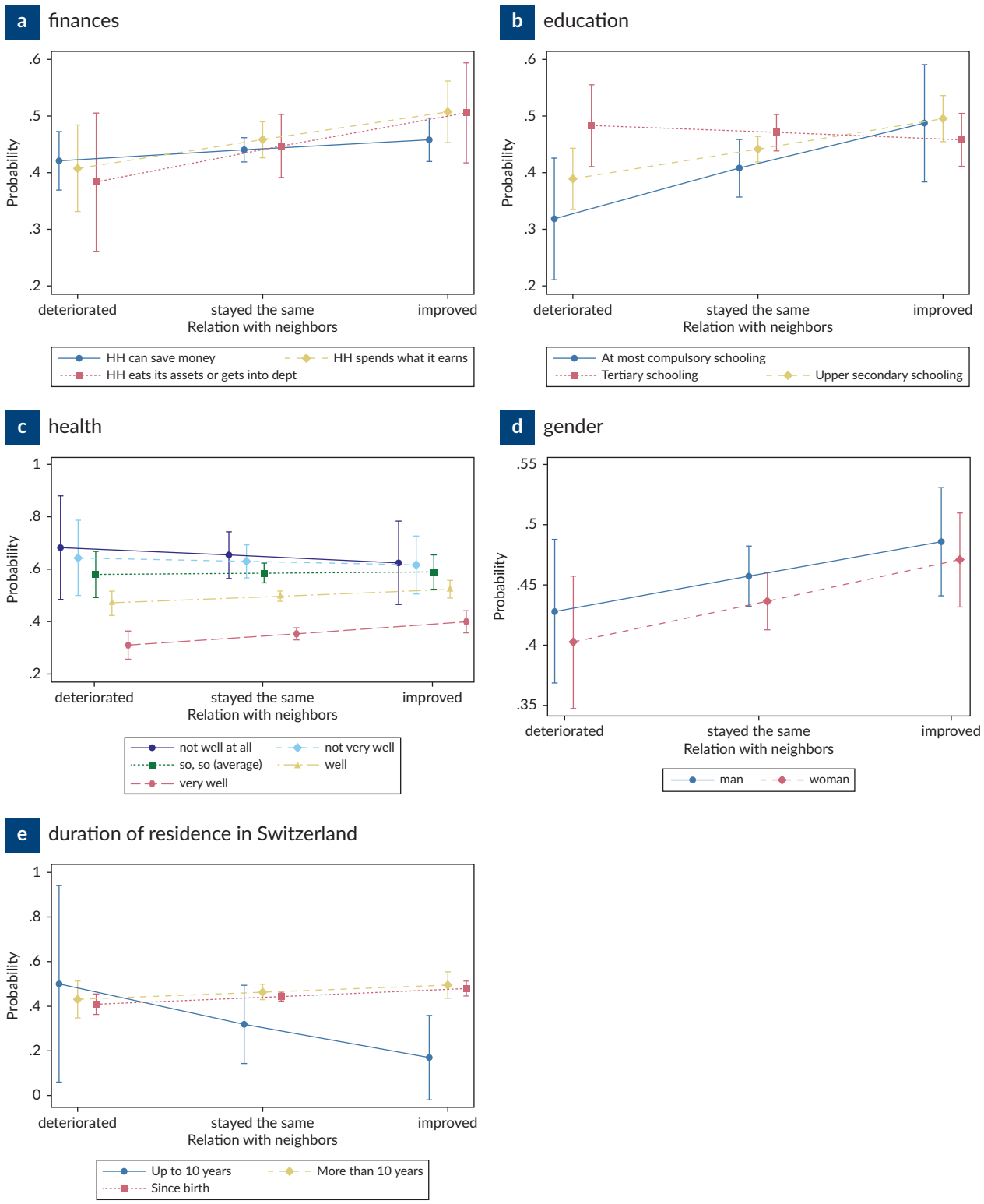

Figure 3. Interaction effects of vulnerability factors with change in relationship with neighbors on people's SWB.

of SWB all along. Finally, from Figure 3, we also conclude that—at least in the present study—there is no gendered effect of changes in people's neighborhood network on their SWB.

5. Conclusion

This article investigated the long-term trajectories of SWB, assessed by people's overall satisfaction with life, using five waves of panel data from Switzerland between 2019 and 2022. Using sequence analysis, we identified three distinct clusters of typical trajectories of SWB. The first cluster comprises people who were satisfied prior to the pandemic, who then saw a decline in SWB right after the first lockdown and a subsequent recovery to pre-pandemic levels. This cluster makes up almost half of all respondents. The second and third clusters, each consisting of about one-quarter of all respondents, comprise people who report very high levels of life satisfaction throughout the whole observation period, or who show declining levels of SWB since the end of the first lockdown in Switzerland, respectively.

Predicting cluster membership in a second step, we demonstrate that people who improved their relations with neighbors during the pandemic are more likely to show recovering trajectories of SWB. Moreover, this effect seems to be more pronounced among people with less financial means and lower education. This, in turn, is particularly beneficial since people with less financial means also tend to be more negatively affected by crises (Sarracino & Piekałkiewicz, 2021), and less educated individuals report lower levels of SWB in general (Deeming, 2013; Salameh et al., 2022). Further, a possible explanation could be that the Covid-19 pandemic also led to economic uncertainty regarding the job market. Hence, people with lower education and financial means might worry more about losing their jobs, and having more social contacts can help them cope with it. In contrast, people who more recently migrated to Switzerland (less than 10 years ago) do not benefit from improving neighborly relations in terms of belonging to the recovery-trajectory cluster. Also, people who mobilized more emotional support from friends and neighbors prior to the pandemic were more likely to show stable trajectories of SWB and report very high levels of satisfaction throughout the whole time window. While in line with previous findings on the importance of localized social capital (Guan et al., 2023; Zangger, 2023), our results extend the literature by means of examining long-term trajectories and studying group-level heterogeneous responses to changing neighborhood networks.

Our study has several limitations to keep in mind. First, even though we use five waves of panel data to assess SWB trajectories, our approach does not reveal causal effects. Particularly, the analyses in this study do not account for further factors such as significant changes in individuals' lives (such as loss of loved ones, job loss, etc.) or major events, such as increasing cost of living and the inflation crisis, that likely also affected SWB trajectories. Instead, this article identifies (risk) factors associated with distinct SWB trajectories, focusing on the role of localized social capital and neighborhood networks. As long as these additional factors are not distinctively associated with changes in neighborly relations (e.g., if neighborhood relations were to change as a result of losing a family member during the pandemic), failing to account for them only introduces additional noise but no bias into the estimates. Nevertheless, these additional factors could also explain some of the heterogeneity in our clusters, especially for the third one that is characterized by people who report declining levels of SWB in the observed time window, or for more recent migrants that seem—at least in our analyses—not to benefit from improving neighborly relations. Second, one key measure, the change in people's relations with neighbors, is subjectively assessed by respondents and does not necessarily reflect actual change. However, since qualitative aspects of social networks and perceived

change therein have been shown to particularly influence people's well-being (Bian et al., 2018; Fehr & Harasymchuk, 2017), we are confident that our results reveal meaningful patterns. Finally, although representative of all of Switzerland, the results do not straightforwardly generalize to other contexts. Compared to other countries, Switzerland is characterized by high levels of SWB. Moreover, compared to other European countries, policy responses to the pandemic were relatively modest: The first lockdown, ending right before the interim Covid-19 data collection that was crucial for this study, lasted only six weeks, and no curfews were in place. After this period, shops reopened, and social distancing measures were gradually lifted except for the short second, less impactful lockdown in January–February 2021.

The findings of this study have several implications. First, confirming the experience from other contexts and crises (LaLone, 2012; Schobert et al., 2023), local support networks facilitate recovery after crises. Fostering local social capital and networks thus benefits residents not only in their everyday lives but also in terms of community resilience (Aldrich & Meyer, 2015). In line with results from other contexts (Zetterberg et al., 2021), this is especially true if people already can count on support from neighbors, friends, and family prior to the crisis, highlighting thus a social gradient in crisis response that works through people's social networks, within as well as outside neighborhoods. In this respect, combining our network-based approach with studies focusing on the impact of socio-economic segregation on people's well-being could be especially promising for future research. Second, our results suggest that these positive effects are more pronounced among vulnerable groups (in terms of income and education), enabling targeted interventions to enhance their living conditions. That is, people with less financial means might benefit most from interventions that increase community resilience at the neighborhood level by, for example, promoting neighborhood networks and contacts. Third, there is, however, a considerable group of people whose SWB does not recover in the years following the onset of the pandemic. While our analyses only revealed a few (and rather obvious) predictors, such as one's financial situation, health, and less support from friends and neighbors, more research into this particular group is needed to identify additional risk factors, especially concerning the multiplicity of crises during the last years, such as rising inflation and cost of living. In this respect, qualitative inquiries into people's everyday experiences might complement our and others' quantitative approaches.

Acknowledgments

We would like to thank the editors and all reviewers for their very helpful and constructive feedback. Additionally, we would like to thank Sandra Gilgen for her careful proofing of our manuscript and helpful comments.

Funding

This research was funded through an SNSF Ambizione grant, grant number 201694.

Conflict of Interests

The authors declare no conflict of interests.

Data Availability

This study has been realized using the data collected by the Swiss Household Panel (SHP), which is based at the Swiss Centre of Expertise in the Social Sciences FORS. The project is financed by the Swiss National Science Foundation. Data can be accessed via https://www.swissubase.ch.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

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