



Surviving in Crisis Mode: The Effect of Material Hardship and Social Support on Emotional Wellbeing Among People in Poverty During COVID-19

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Abstract

The COVID-19 pandemic triggered a sudden economic crisis that led to increases in hardship and poverty. Motivated by the concern that people living in long-term poverty have few reserves to draw upon in times of crisis and may experience severe consequences, this study focuses on the association between material hardship and emotional wellbeing among people in poverty. The data were collected in two waves of telephone surveys during the pandemic (n = 88). Participants for the study were recruited through social service departments in six cities in Northern Israel. The findings show that COVID-19 increased material hardship, and that material hardship has detrimental effects on the four measures of emotional wellbeing selected (stress, anxiety, depression, and physical symptoms). Informal social support has positive effects on emotional wellbeing but it does not counter the negative effects of material hardship. Policy implications are discussed.

Keywords Poverty · Material hardship · Covid-19 · Emotional wellbeing · Stress · Depression · Anxiety · Social support

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1 Introduction

Beyond the health crisis, the COVID-19 pandemic instigated a sudden and unanticipated economic crisis that led to reductions in earnings and increases in financial vulnerability worldwide (Midoes & Sere, 2021). Vulnerable groups, such as people in poverty, experienced increases in material hardship and food insecurity during the pandemic (Bidisha et al., 2021; Bukari et al., 2021). We argue that people's experiences of the pandemic are shaped by the context in which they live, especially by the social connections and the resources that they have (Galea, 2019). In this paper we examine the association between changes in material hardship, social support, and emotional wellbeing among people in poverty, during COVID-19. Material hardship and food insecurity act as stressors found to have detrimental effects on emotional wellbeing (e.g., Bierman & Sciemann, 2020; Galea, 2019; Kang et al., 2021; Sano et al., 2021; Santiago et al., 2011; Siefert et al., 2004). Social support has been found to buffer but not eliminate these negative effects (Chang et al., 2020). Less is known about how a sudden increase in material hardship affects emotional wellbeing in that population. This study was motivated by our concern that, notwithstanding their sources of social support, people living in ongoing poverty have few reserves to draw upon during crises and lack the resources to withstand economic upheavals, and they may experience severe consequences (Galea, 2019). Hence, one aim of this study is to inform policymakers about the resources and services to be delivered to this group in such periods. Another aim is to inform scholarly theory of how material hardship is related to emotional wellbeing among economically vulnerable social groups during times of crisis.

The study was carried out during the COVID-19 breakout in Israel. Israel is an interesting case to study the economic impacts of COVID-19 because of its unique, albeit contradictory, attributes. Israel, a member of the OECD (Organisation for Economic Co-operation and Development), has an advanced economy and exhibits high public health indicators yet, at the same time, suffers from high poverty rates (OECD, 2020). Israel's advanced public health system proved to be efficient in responding to the COVID-19 medical crisis and in vaccinating its adult residents although other institutions were less effective in responding to the economic crisis, especially among the lowest income groups. Most pointedly, government economic incentives targeted middle-class business owners and employees in primarily union-protected jobs. Thus, the most affluent remained unaffected economically by COVID-19, while the middle class received unemployment benefits if furloughed (Swirski et al., 2021). In contrast, people in poverty were targeted for few if any emergency benefits because government officials mistakenly assumed that the welfare grants already in place would be sufficient.¹ However, welfare payments alone have been shown to be insufficient for subsistence, with people in poverty tending to combine welfare and work to make ends meet (Edin & Lein, 1997). Moreover, many people living in poverty do not receive welfare benefits; they rely solely on low-paying, often precarious jobs. Studies have shown that people participating in precarious employment are likely to be laid off during economic crises (Henly et al., 2021).

As in many other countries, Israel initially responded to the pandemic by introducing lockdowns (March 19–April 24, 2020, September 18–October 18, 2020, and December 27, 2020–February 6, 2021) and closing non-essential businesses to curb the spread of

¹ On September 22, 2020, Prof. Avi Simhon, the Israeli Prime Minister's economic advisor, declared that the poor were least affected by the COVID-19 crisis because they receive a subsistence allowance from the National Insurance Institute (NII).

the disease and thus stagger the demand on hospital intensive care units. Lockdowns were ended when the health situation improved, and reinstated when the numbers of sick people again rose. These fluctuations continued for the pandemic's first year, until a vaccine was introduced and the restrictions on businesses were gradually relaxed. In addition to lockdowns, social distancing policies were introduced, including online schooling (elementary through university) as were work-at-home initiatives. Nursery schools and child care services were also closed for long periods, forcing parents of young children to stay at home.

Evidence indicates that people in poverty experience poorer health (Galea, 2019; Marmot, 2002; Renahy et al., 2018; Siefert et al., 2004) and are at higher risk of exposure to COVID-19 than are less vulnerable groups (Finch & Finch, 2020). Indeed, studies on COVID-19 have pointed to its disproportionate impact on the health of vulnerable populations (e.g., Galea, 2019; Little et al., 2021; Maroko et al., 2020). But, to our knowledge, studies have not yet examined the pandemic's effect on emotional wellbeing among people living in poverty. In the current study we take some steps to fill this empirical gap by examining emotional wellbeing and how its features (levels of stress, anxiety, depression, and physical symptoms) are related to material hardship and formal and informal sources of social support.

2 Material Hardship and Emotional Wellbeing Among People in Poverty

Material hardship is a major stressor in adults' lives and a strong, consistent correlate of poor mental health (Keily et al., 2015). People living in poverty and people employed in low-wage, unstable jobs, experience more material hardship than the general population and are at greater risk of experiencing stress, anxiety, and depression (Lewin & Stier, 2017; Schmidt & Danziger, 2012; Schneider & Harknett, 2020). But findings are mixed regarding the relative effects of *changes* in material hardship, versus the effects of *chronic* hardship, on emotional wellbeing. Some studies have found that changes in material hardship lead to changes in mental health (Elo, 2009; Heflin & Iceland, 2009; Heflin et al., 2005; McCarthy et al., 2018; Mirowsky & Ross, 2001), whereas others have emphasized the detrimental effects of *long-term, chronic* material hardship on the mental health (Bierman et al., 2021; Galea, 2019; Keily et al., 2015; Skapinkis, 2007; Weich & Lewis, 1998). Some studies address the issue directly, and distinguish *persistent* hardship from *changes* in hardship. For example, Keily et al. (2015) found that persistent cash flow problems had a greater effect on mental health than did fluctuations in cash flow.

Another line of inquiry distinguishes between different types of material hardship and shows that some types of hardship are more detrimental to mental health than are others. For example, food insecurity has been found to increase the risk of depression (Bergmans & Wegryn-Jones, 2020; Heflin & Iceland, 2009; Heflin et al., 2005; Siefert et al., 2004) more than do fluctuations in cash flow and the inability to pay bills (Heflin & Iceland, 2009; Keily et al., 2015). Likewise, the inability to pay rent can lead to eviction and unstable living conditions, which may consequently have detrimental effects on mental health (Desmond, 2016).

It has been shown that formal and informal social support can buffer the impact of material hardship on emotional wellbeing (Chang et al., 2020) by providing instrumental supports in the form of a place to live, a loan, or child care (Edin & Lein, 1997; Harknett, 2006; Henly et al., 2005). Formal support from government agencies and social workers

(e.g., funds and services), are especially crucial during crises, when material hardship and emotional stress climb. Informal social support, while important, has been shown to be under-utilized because people try not to exhaust their informal social support networks, especially if they cannot reciprocate (Harknett, 2006).

This study employs three different measures of material hardship: number of hardships, change and chronicity of hardship; and type of hardship. It introduces two main innovations: First, it focuses on the COVID-19 crisis, which is a rare global phenomenon, and second, it centers on people living in poverty, a small, socially marginal and excluded group.

3 Research Questions

We set out to understand the ways in which material hardship during the pandemic affects emotional wellbeing among people living in poverty. We asked:

- (1) Does the number of hardships affect emotional wellbeing (stress, depression, anxiety, and physical symptoms) during the pandemic? Do these effects endure over time?
- (2) Do change and chronicity of hardship affect emotional wellbeing differently during the pandemic? Do these effects endure over time?
- (3) Do the effects of hardship on emotional wellbeing differ by type of hardship (food, medication, rent, utilities, loans and other) during the pandemic? Do these effects endure over time?

Based on the literature, we expected material hardship during the pandemic to have detrimental effects on all measures of mental health, with its effects enduring over time. More specifically, we expected the number of hardships to increase stress, depression, anxiety, and physical symptoms in both waves of the pandemic. We also expected long-term hardship to be more detrimental than recent changes in hardship. Finally, we expected hardship in the areas of food, medicine, and rent to be more detrimental to mental health than would hardship in paying utilities, loans, and other expenses.

4 Method

4.1 Sample and Sampling

Data were collected via two telephone surveys of people in poverty, at two points in time. Wave 1 took place from mid May 2020 until the end of the first week in July 2020 (after the 1st lockdown). Wave 2 took place in September–October 2020 (during the 2nd lockdown). Participants in the survey ($n=88$) were recruited through social service departments located in six cities in Northern Israel. Clients who agreed to participate in the study were contacted by our interviewers, who repeated the study explanation to them and then asked if they would agree to arrange to be interviewed.

Recruitment of participants through social service departments is a good way to obtain a sample of people in poverty even though this is a complicated process, with the special conditions induced by the pandemic posing further obstacles. Nonetheless, most of the participants in the telephone surveys cooperated with the interviewers and shared their

experiences with them. All the participants agreed to partake in the study's second wave. Six participants later changed their minds, leaving 93.2% of first-wave participants taking part in the second wave ($n=82$). Some participants even contacted our interviewer between the waves 'just to talk' because they had enjoyed the survey interview.

During the second wave survey, some of the participants told the interviewers that they were sorry that they had not spoken with them since the first survey wave because the interview had helped them organize their thoughts and feelings. Our interviewers, who were social workers studying for their MA, had applied their empathy and professional skills to create a supportive atmosphere. This encouraged participants to share their feelings and thoughts openly, thereby giving us access to deeper and broader information than required by the basic questionnaire. Another possible explanation of our low attrition rate is that COVID-19 social distancing restrictions and lockdowns led to loneliness and some level of despair. Talking to our interviewers presented participants with an opportunity for social interaction and discussion about these troubling times. In this sense, our study may have had an unintended therapeutic effect (Shamai, 2003).

4.1.1 Sample Characteristics

Wave 1 included a sample of 88 participants; Wave 2 of 82 participants. Table 1 presents selected demographic characteristics of each sample. The figures indicate that attrition was random; the means and percentage distributions did not differ substantially between the two waves. Despite our small and non-random sample, the profile created shows that it reflects the population in poverty that applies for assistance from social service departments in Northern Israel. Nonetheless, we advise caution in generalizing from a non-random sample to the population, and we limit our discussion to people living in poverty and receiving welfare in Israel's Northern region.

As can be seen, the majority of participants were women; most were unmarried (due to divorce, separation, widowhood, or single parenthood). The sample included Jews and Arabs, native Israelis and immigrants of different levels of religiosity and education. Table 1 shows that a high percentage of participants had acquired a high school education, a vocational diploma, or academic degree, which is not typical of people living in poverty. This was due to the high percentage of participants who were immigrants from the Former Soviet Union (FSU) and represented about 30% of our sample, a group over-represented among the highly educated in Israel. Of all the participants with a tertiary education in our sample, 37% were immigrants from the FSU, as were almost half (47%) of all the survey participants with an academic education (these data are not shown in Table 1). In order to validate that the survey participants did indeed live in poverty, we asked about income levels before the pandemic. Indeed, pre-pandemic incomes were low, as follows: 78.4% of the participants reported household income much lower than the Israeli average, 15.9% reported household income slightly below the average, 4.5% reported an average income and 1.1% reported income slightly above the average.

4.2 Measurement Tools and Data Collection

After the project's approval by the Ethics Committee of our university (approval no. 296/20), data were collected through two waves of telephone surveys at two points in time, mid May 2020 until the end of the first week in July 2020, and September–October 2020. We initially planned to start collecting data during the first lockdown and then 6 months

Table 1 Means (standard deviations) and percent distributions of variables

Gender	Wave 1	Wave 2
% Female	77.3	76.8
Mean age (sd)	40.81 (9.40)	41.30 (9.44)
Marital status		
% Married	33.0	34.1
% Divorced	42.0	40.2
% Separated	5.7	6.1
% Widowed	2.3	2.4
% Single	12.5	12.2
% In a relationship	4.5	4.9
Children		
% with children	95.5	95.1
Mean Number of children (sd)	3.01 (2.0)	3.0 (2.02)
Country of origin		
% Israel	58	54.9
% FSU	29.5	31.7
% Ethiopia	5.7	6.1
% Asia and North Africa	3.4	3.7
% Central Europe and US	3.4	3.7
Religion		
% Jewish	76.1	76.8
% Muslim	12.5	11.0
% Christian	9.1	9.8
% Other religion	2.3	2.4
Religiosity among Jews		
% Secular	40.2	41.5
% Traditional	37.9	35.4
% Orthodox	13.8	13.4
% Ultra-Orthodox	8.0	8.5
Education (All)		
% Without education	4.5	3.7
% Elementary and middle school	2.2	1.2
% High school, no diploma	36.4	36.6
% High school with diploma	13.6	13.4
% Tertiary, vocational	21.6	22.0
% Academic degree (BA)	21.6	23.2
N	88	82

later, expecting the pandemic to have ended by then. Our expectations were proven wrong. Data collection for the first wave was delayed because social workers were busy distributing food during the first lockdown and could not send us a list of potential participants; the second wave was conducted in the midst rather than after the end of the second lockdown. Such constraints challenge researchers conducting a study in the midst of a crisis.

4.3 Variables

4.3.1 Dependent Variables

This study measured four dependent variables—*level of stress, anxiety, depression, and physical symptoms*—as measured by the Brief Stress Inventory (BSI), developed by Derogatis and Melisaratos (1983) and translated into Hebrew and validated (Gilbar & Ben-Zur, 2002). The inventory examines a person's degree of general distress based on nine sub-scales. In the present study we examined four dimensions: *somatization* (six items), *depression* (six items), and *anxiety* (six items). *General stress* was calculated as the mean of all 18 items. Participants marked the strength of each item on a scale of 1–5, where 1 corresponds to “never” and 5 to “very frequently.” Both the original questionnaire and the Hebrew translation have been found to be valid and reliable (Gilbar & Ben-Zur, 2002). In Wave 1, the Cronbach's alpha achieved was 0.91 for the three scales, 0.8 for the anxiety scale, 0.81 for the depression scale, and 0.84 for the somatization scale. In Wave 2, the Cronbach's alpha was 0.93 for the three scales, 0.88 for the anxiety scale, 0.83 for the depression scale, and 0.84 for the somatization scale.

4.3.2 Independent Variables

Our main independent variables were material hardship and sources of social support.

- (1) *Number of hardships*. This is a continuous variable that counts the number of items participants reported having difficulty purchasing from a list of six items (food, medication, rent, utilities and taxes, debts repayment, and other economic hardships). Questionnaire item: *Which of the following economic difficulties have you encountered [during the lockdown (wave 1); since the lockdown (wave 2)]?* We created separate measures for Wave 1 and for Wave 2.
- (2) *Change and chronicity in hardships*. Change in material hardship was measured as a change in the ability to cover monthly household expenses (food, electricity, telephone, etc.) in comparison to the pre-pandemic period. This variable was presented as three categories: (1) “Able to pay household expenses” refers to those who reported either always or usually managing to pay household expenses, both before and after the COVID-19 outbreak. The very few cases where the ability to pay expenses had improved since the start of COVID-19 were included in this category. (2) Those who could usually cover household expenses before COVID-19 but encountered difficulties since the pandemic's start: the “material hardship got worse” category. (3) The reference category for regressions included those who reported experiencing difficulties paying household expenses before and after the pandemic started. We created two measures, one for each wave.
- (3) *Type of hardship*. We created six binary variables in each wave, referring to difficulty in purchasing each of the following items: food, medication, rent, utilities and taxes, debt repayment, other economic hardships.
- (4) *Social support* was measured in each wave with the Multidimensional Scale of Perceived Social Support questionnaire (MSPSS), developed by Zimet et al. (1988). The questionnaire includes 12 items, divided into three sources of support: family, friends, and close significant others (four items per source). Each item was ranked on a scale of

1–7, where 1 corresponds to “not very suitable” and 7 to “very suitable.” Zimet et al. (1988) found Cronbach’s alpha reliability to be 0.88 whereas Canty-Mitchell and Zimet (2000) found reliability to be 0.93. In Wave 1, Cronbach’s alpha reliability was 0.92 for the entire scale used in the current study. In Wave 2, Cronbach’s alpha reliability for the entire scale was 0.94.

- (5) *Formal support: Contact with social worker.* We also provided an item with a variable asking whether the participant had been in contact with a social worker since the pandemic began, indicating support provided by formal institutions, in this case, the local social service department.

The multivariate analyses controlled for gender (female=1; male=0), age (in years), nationality (Jewish=1; Arab²=0), and education (academic=1; non-academic=0). Missing values were deleted listwise. Analyses were conducted using Stata 15. Quantitative data were supplemented with content analysis of the responses received to the open-ended questions asked during the interviews, which enriched our understanding of the participants’ experiences. We report selected participants’ comments during the interviews and their answers to the open-ended questions throughout our findings section. These quotes shed additional light on the participants’ experiences during the pandemic.

5 Results

5.1 Descriptive Statistics

The results of the descriptive statistics are followed by quotations from participants’ responses to the open-ended questions. All the study participants, people living in poverty, received services from the local social service department. Indeed, the majority (78.4%) of respondents reported their pre-COVID-19 household incomes as “much lower than average,” which makes them eligible to receive services. This percentage increased to 85% in Wave 1 and remained almost the same in Wave 2.

5.2 Independent Variables

The declines in income following the pandemic translate into material hardship.

5.2.1 Number of Hardships

We counted the number of items (food, medication, rent, taxes and utilities, loan repayment, and ‘other’) participants reported difficulty paying for due to financial hardship. Table 2 shows that the mean number of hardships declined between Wave 1 and Wave 2 (from 2.8 to 2.38), suggesting there may have been some recovery.

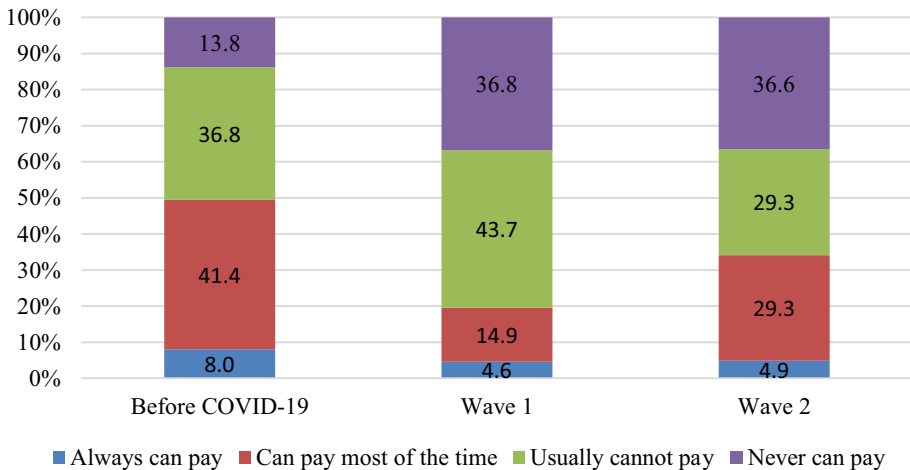
² The sample is too small to distinguish Arabs by religion, so Muslims, Christians, and Druze are grouped together.

Table 2 Areas of material hardship, wave 1 and wave 2

Unable to Pay for	Wave 1	Wave 2
Food	46.6%	35.4%
Medication	23.6	23.2
Rent	40.9	20.7
Utilities and taxes	67	62.2
Debt repayment	68.2	72
Other economic hardships	34.1	24.4
No difficulties	10.2	14.6
Number of difficulties (mean)	2.80	2.38
(SD)	(1.78)	(2.38)
Able to purchase before and after COVID-19*	18.4%	25.9%
Material hardship worsened	32.2	32.1
Chronic material hardship before & after COVID-19	49.4	42.0
N	88	82

*There was one missing case for this variable, so there are 87 respondents in Wave 1 and 81 respondents in Wave 2

Ability to pay for monthly household expenses

**Fig. 1** Ability to pay for monthly household expenses

5.2.2 Chronicity and Change in Hardships

Changes in ability to pay for household utilities are presented in Fig. 1. This information provides the basis for our measure of chronicity and changes in material hardship.

In the first survey wave, we asked participants if they had managed to pay for household utilities before COVID-19 and if they were managing in the present. In the second wave, we repeated the question. Each time point has four response categories: can always pay,

can pay most of the time, usually can pay, never can pay. Figure 1 shows a steep increase in material hardship in Wave 1, with some moderate recovery by Wave 2. About 14% of the participants surveyed reported having never been able to pay for utilities and other household expenses before the pandemic. This percentage increased to about 37% in Wave 1 and remained more or less stable in Wave 2. Before the pandemic, almost half (49%) of participants reported being able to pay for utilities “always” or “most of the time.” This percentage declined in the first wave, after the first lockdown, to about 20%, reflecting an increase in hardship. By the second wave of data collection, during and immediately after the second lockdown, 34% of the respondents reported being able to pay for utilities “always” or “most of the time,” suggesting some recovery after reporting initial hardship following COVID-19.

Table 2 shows that the percentage of participants able to pay their household expenses before and after COVID-19 increased from 18 to 26. Nonetheless, about half of participants in Wave 1 (49%) and Wave 2 (42%), experienced chronic hardship, both before and after the COVID-19 pandemic started. These findings reveal substantial material hardship among people in poverty during the pandemic.

5.2.3 Type of Material Hardships

We also asked which items or services participants had difficulty purchasing (multiple responses were allowed). As Table 2 reveals, there seems to have been some measure of recovery between the two waves, with 10% of participants in Wave 1 and 15% in Wave 2 reporting no difficulty in purchasing any of the items listed. However, almost half of the participants (47%) in the first wave and about a third (37%) in the second wave reported not having enough money to buy food. The decline in food insecurity between the two waves may have resulted from better organization by the welfare services and various NGOs that supply food on a regular basis. In both waves, almost one quarter (23%) of respondents reported not having enough money to buy medication. The high percentages of participants declaring difficulty paying for food or medications may be perceived as indications of severe material hardship.

As to paying rent, almost 41% of the survey participants reported difficulty paying rent in the first wave, a proportion that declined to 21% in the second wave. This decline may have been produced by moving to less-expensive dwellings or returning to live with family. Some participants told the interviewers that they paid rent before paying for utilities to avoid eviction. Indeed, over half the respondents (67% in Wave 1 and 62% in Wave 2) reported having difficulty paying for utilities and taxes. Failure to pay rent can lead to eviction, whereas not paying city taxes may lead to fines that can be contested later. About 70% of participants in both waves reported the inability to repay debts, a situation likely to cause stress and long-term financial injury, especially if the debts carry high interest rates. About one third of the respondents in Wave 1 and one quarter in Wave 2 reported “other financial hardships.”

The following quotes describe facets of the experience of material hardship, expressed by the participants during their interviews. It is noteworthy that the participants’ descriptions in the second wave were similar to those related in the first wave, despite the declines captured by the quantitative measures. We may venture that these accounts can be related to the persistent challenges posed by poverty, adversities intensified by the pandemic-induced financial context, as illustrated below. The first two

quotes come from interviews conducted during the first wave; the following two are from interviews during the second wave:

1. I asked for a loan from friends to pay the rent (NIS 1,500). One friend helped me pay the electricity bill, but I could not pay property tax and now I'm in debt. We were not prepared; we live from pay slip to pay slip. We were afraid that we wouldn't have food and other stuff [in the stores], so we shopped like crazy at the beginning of the lockdown and were left without money...
2. My husband takes a lot of medication and I had no money to buy him the medicine he needs... .. The washing machine broke down; nothing was open and we couldn't buy a new one online because we don't have credit.
3. I had a lot of expenses during the lockdown. They wanted to cut off my electricity.... My landlord evicted me and the children from the apartment because I did not pay my debts. I had to find a new apartment during the lockdown
4. During lockdown, we had more expenses and so accumulated debts [for the first time].

The interviewees emphasized material hardships that center around the cost of basic needs, such as rent, food, and medication. They also mentioned an increase in expenditures for those needs, e.g., "the kids eat all the time." In addition, they also raised a problem shared by many people living in poverty: denial of credit due to their poor financial situation. This created a serious problem during the lockdowns and spates of social distancing, when online shopping could be paid for only with credit card.

1. I cannot pay the bills ... I have a huge minus of NIS 8,000. ...I'm a single mother. Why do I get no relief from taxes and bills at a time like this? I do not have a refrigerator; it broke down. My credit card was blocked because of my debts and I searched and searched for a place that accepts checks...

In the second wave, a number of participants reported a decline in their financial situation as a result of the prolonged pandemic:

2. It's a real blow. I work in transportation [taxi driver]. I think it might be worth my while to retire. I have no livelihood. I'm not issued a pay slip. I am not entitled to receive anything from the state. No income at all, you're better off staying home ... all the money goes ...[for] renting taxis and gas. There'll be no work until the economy returns to normal... The situation is only getting worse... I get help from the family and only then can I pay my expenses. I already owe two months of rent.

This quotation is also a good example of the plight of a person in poverty, who works but has no reserves to fall back on during a crisis (i.e., a member of the working poor). Furthermore, due to his work as a hired taxi driver, he is not entitled to receive even the minimal grant provided by the state to the self-employed and middle- class employees laid off, or furloughed.

In the second wave, however, we found several interviewees who equated the situation created by COVID-19 with their enduring reality: "We are in a state of constant need, every day is one of survival" or "We are always in survival mode." "The situation has not really changed... we are always struggling, and we are used to it ... we live in constant distress."

Yet when they described survival in the present context, the extra difficulty created by the crisis was immediately evident:

Table 3 Levels of stress, anxiety, depression and physical symptoms

	Wave 1	Wave 2	Sig dif
Stress (1–5)	2.56 (0.95)	2.43 (1.02)	N.S
Anxiety (1–5)	3.04 (1.09)	2.73 (1.22)	0.004**
Depression (1–5)	2.56 (1.08)	2.41 (1.09)	N.S
Physical Symptoms (1–5)	2.09 (1.10)	2.15 (1.10)	N.S

** $p < 0.05$

3. Survival is on a daily basis, it's always like that, it's not that our lives are always rosy. I got a prescription for Ritalin but I have no money to buy it because I did not work for two weeks and did not receive a shekel. After the previous lockdown came a foreclosure ... I can pay neither the debt nor the current expenses. I have not paid my bills, I have not paid the rent.

The theme that emerged from the respondents' comments can be summarized as follows: Life in poverty is a constant financial challenge. Being constantly in survival mode takes an emotional and social toll, putting these families' mental and physical health at risk.

5.2.4 Formal and Informal Social Support

One important aspect of contending with crisis is the availability of social support. We measured general social support by the Multidimensional Scale of Perceived Social Support (Zimet et al., 1988). The level of social support was measured on a 1–7 scale, with responses relatively high in the first wave ($M = 4.92$, $SD = 1.62$) as well as the second wave ($M = 4.96$, $SD = 1.78$). When asked about the availability of formal social support, the great majority of participants (77.3%) indicated that their social workers had initiated contact with them during the first wave; 74.4% reported the same during the second wave.

Our participants, being clients of local government social service departments, tended to focus on social workers as their main source of formal social support.³

5.3 Dependent Variables

5.3.1 Emotional Wellbeing

Our measures of emotional wellbeing are presented in Table 3.

As can be seen, the overall levels of stress, anxiety, and depression decreased by the second wave of the survey. However, only the decrease in anxiety was found to be statistically significant ($t = 2.928$, $df = 81$, $p < 0.01$). Physical symptoms increased but that increase was also statistically insignificant. The decrease in anxiety may have

³ Extensive description and analysis of the participants' perception of social workers during the pandemic and lockdown is beyond the scope of the current study.

resulted from the growing acquaintance with the COVID-19 phenomenon and the relatively small number of young people who were either seriously ill or had died from the virus. We would argue that the slight (yet statistically insignificant) decrease in depression may be explained by the return to relatively normal daily life achieved between lockdowns.

It is important to note that in both waves of the survey, some of the participants' descriptions of their mental health did not imply anything specific about the pandemic's effect on poverty:

1. I became anxious. I didn't know how we would survive, so I went to the supermarket every day and bought a lot of things. The difficulties with the kids affected me mentally... I was afraid that soldiers would chase after me, as if I was a criminal, an escaped prisoner. When I heard the word "lockdown," I became even more anxious ... I thought the end of the world was coming, that many, many people would die and that I'd see bodies in the streets. (Wave 1)
2. This situation is driving us crazy. I do not know where I am, the world has turned upside down. I started going to a treatment group with a psychiatrist, and it helps, it makes us feel that we are not alone. (Wave 2)

Only two comments implied a connection between poverty and stress due to the small size of the apartment the interviewees could afford:

1. I have a small apartment, only 10 square meters. I felt like I was in prison and it really depressed me. It was really oppressive to be alone... I felt worthless. I lost hope.
2. My daughter was infected by COVID; we were in isolation and suffered a lot ... Our house is very small, about 59 square meters and we are six people. There are not even doors in the rooms and it was impossible to isolate the sick.

5.3.2 Multivariate Analysis

The results of the multivariate analysis with respect to the main independent variables are presented in Tables 4, 5, 6, 7 and 8 according to the research questions: (1) number of hardships; (2) change and chronicity of hardships, and (3) types of hardship.

5.3.2.1 Number of Hardships In Wave 1, as expected, the number of material hardships was found to be statistically significant in increasing the levels of stress, anxiety, depression, and physical symptoms. The effect of number of material hardships on emotional wellbeing persisted into Wave 2, even after controlling for level of emotional wellbeing in Wave 1.

Social support had a positive effect, reducing stress, anxiety and depression in Wave 1, with an added reduction of physical symptoms in Wave 2. In contrast, the effects of formal support, measured as any contact with a social worker, were statistically insignificant for all four measures, in both waves.

5.3.2.2 Chronicity and Change of Hardships We next set out to test whether changes in material hardships and chronicity affected our measures of emotional well-being. Here, we measured change in material hardship as a change in the ability to pay for monthly household expenses. Tables 6 and 7 show that those who reported an ability to pay expenses both prior and subsequent to the start of the pandemic enjoyed better emotional wellbeing

Table 4 Regression coefficients (Standard Errors) predicting stress, anxiety, depression and physical symptoms by number of material hardships, wave 1

	(1) Stress	(2) Anxiety	(3) Depression	(4) Physical Symptoms
Female	-0.008 (0.221)	0.097 (0.271)	-0.409 (0.243)	0.286 (0.248)
Age	0.025* (0.010)	0.030* (0.012)	0.013 (0.011)	0.031** (0.011)
Jew	-0.095 (0.253)	0.150 (0.311)	-0.215 (0.279)	-0.221 (0.285)
Academic	-0.150 (0.222)	-0.129 (0.273)	-0.121 (0.245)	-0.198 (0.250)
Number of hardships	0.176*** (0.052)	0.138* (0.063)	0.123* (0.057)	0.267*** (0.058)
Social support	-0.166** (0.059)	-0.148* (0.073)	-0.310*** (0.065)	-0.039 (0.066)
Any contact with a social worker	0.157 (0.280)	0.165 (0.344)	0.125 (0.309)	0.181 (0.315)
Constant	1.866** (0.637)	1.828* (0.784)	3.638*** (0.703)	-0.868 (0.718)
Observations	88	88	88	88
r^2	41.03	27.96	34.53	38.70

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

than those who reported chronic difficulty in paying household expenses in both periods (reference category), in both Wave 1 and Wave 2. More specifically, in Wave 1, those able to pay for household expenses showed lower levels of stress and physical symptoms than did those who reported difficulties in paying household expenses both before and after the pandemic started (the reference category). These findings were more pronounced in Wave 2, when those able to pay their household expenses showed lower levels of stress, anxiety, and depression than did those who reported chronic difficulties in doing so (the reference category).

Interestingly, those who reported increased material hardship (ability to pay household expenses before COVID-19 but difficulty doing so after the pandemic started) in Wave 1 showed better emotional wellbeing than those with chronic material hardship who could not pay their expenses either before or as of the start of COVID-19. More specifically, in Wave 1, those whose hardship increased following the pandemic indicated lower levels of stress, depression, and physical symptoms than did those experiencing continuous hardship since prior to COVID-19. The results for Wave 2 were different: there was no statistically significant difference in emotional hardship between those whose hardship increased following the pandemic and those with chronic hardship. These findings suggest that by wave 2, increases in material hardship following the pandemic are already experienced as long term.

Table 5 Regression coefficients (Standard Errors) predicting stress, anxiety, depression and physical symptoms, by number of material hardships, wave 2

	(1) Stress	(2) Anxiety	(3) Depression	(4) Physical Symptoms
Female	-0.059 (0.170)	-0.256 (0.238)	-0.033 (0.222)	0.061 (0.181)
Age	0.001 (0.007)	0.007 (0.010)	-0.006 (0.009)	0.003 (0.008)
Jew	-0.324 (0.195)	-0.490 (0.269)	-0.479 (0.259)	-0.109 (0.203)
Academic	-0.154 (0.163)	-0.251 (0.229)	-0.125 (0.212)	-0.105 (0.171)
Number of hardships	0.190*** (0.047)	0.222*** (0.062)	0.183** (0.060)	0.195*** (0.049)
Social support	-0.071 (0.040)	-0.048 (0.056)	-0.082 (0.054)	-0.106* (0.042)
Any contact with a social worker	0.029 (0.196)	-0.097 (0.273)	-0.050 (0.253)	0.183 (0.205)
Stress, wave 1	0.612*** (0.084)			
Anxiety, wave 1		0.605*** (0.095)		
Depression, wave 1			0.469*** (0.097)	
Symptoms, wave 1				0.626*** (0.077)
Constant	0.078 (0.470)	0.078 (0.640)	0.935 (0.660)	0.356 (0.456)
Observations	82	82	82	82
r^2	65.27	53.11	49.67	67.45

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Social support reduced stress and depression in both waves, and physical symptoms in Wave 2. Here too, formal support, measured as contact with social workers, did not affect emotional wellbeing.

5.3.2.3 Type of Hardship Analysis of each type of hardship separately (food, medication, rent, utilities, loans and other) revealed that, after controlling for formal and informal social support (and the covariates), more types of hardship had statistically significant negative effects on stress and anxiety in Wave 2 than in Wave 1. These findings demonstrate once more the detrimental effect of consistent hardship over time (Table 8 summarizes these findings). In Wave 1, not being able to pay for medication had a statistically significant effect on the increase in stress, depression, anxiety, and physical symptoms. Not being able to repay loans likewise increased stress, depression, and physical symptoms. Facing other material hardships had detrimental effects on all our measures of emotional wellbeing in Wave 1,

Table 6 Regression coefficients (standard errors) predicting stress, anxiety, depression and physical symptoms, by changes in material hardship since pre-COVID 19, wave 1

	(1) Stress	(2) Anxiety	(3) Depression	(4) Physical Symptoms
Female	0.041 (0.230)	0.091 (0.278)	-0.346 (0.249)	0.378 (0.270)
Age	0.024* (0.010)	0.031* (0.012)	0.012 (0.011)	0.030* (0.012)
Jew	-0.141 (0.262)	0.133 (0.316)	-0.272 (0.284)	-0.284 (0.307)
Academic	-0.205 (0.235)	-0.195 (0.284)	-0.123 (0.255)	-0.295 (0.276)
Able to pay household expenses before & after	-0.632* (0.256)	-0.549 (0.309)	-0.498 (0.277)	-0.848** (0.300)
Material hardship got worse	-0.580* (0.236)	-0.472 (0.285)	-0.564* (0.256)	-0.703* (0.277)
Social support	-0.151* (0.062)	-0.140 (0.075)	-0.288*** (0.068)	-0.025 (0.073)
Any contact with a social worker	-0.053 (0.309)	0.007 (0.373)	-0.107 (0.334)	-0.059 (0.362)
Constant	2.808*** (0.655)	2.610** (0.791)	4.380*** (0.710)	0.433 (0.768)
Observations	87	87	87	87
r^2	22.50	12.40	29.25	29.01

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Material hardship—reference category—not able to pay for expenses—no change since before COVID-19

with all types of hardship, except “other,” having statistically significant effects on stress in Wave 2. Depression was increased by not being able to pay utilities and loans, anxiety was affected by not being able to pay for food, medication and utilities. Finally, physical symptoms increased by hardship in covering the costs of buying food, medication, paying rent and utilities.

6 Summary and Conclusions

We can readily conclude that the COVID-19 pandemic led to job loss and declines in household income (Swirski et al., 2021), by way of widespread layoffs, temporary shut-downs, and permanent closures, events that increased material hardship among vulnerable groups. In the study described here, we examined the effect of material hardship on emotional wellbeing among the most economically vulnerable group—people living in poverty—during a period of economic crisis. Our findings demonstrate the detrimental effects of persistent, long-term material hardship on the emotional wellbeing of this group.

Our findings show that COVID-19 increased material hardship and that material hardship affected emotional wellbeing among people living in poverty in Israel’s

Table 7 Regression coefficients (standard errors) predicting stress, anxiety, depression and physical symptoms, by changes in material hardship since pre-COVID-19, wave 2

	(1) Stress	(2) Anxiety	(3) Depression	(4) Physical Symptoms
Female	-0.085 (0.183)	-0.295 (0.246)	-0.065 (0.229)	0.055 (0.205)
Age	-0.000 (0.008)	0.005 (0.011)	-0.006 (0.010)	0.002 (0.009)
Jew	-0.254 (0.205)	-0.424 (0.272)	-0.390 (0.261)	-0.040 (0.224)
Academic	-0.200 (0.174)	-0.312 (0.232)	-0.184 (0.216)	-0.131 (0.191)
Able to pay household expenses before & after	-0.529** (0.183)	-0.831*** (0.236)	-0.592** (0.224)	-0.240 (0.205)
Material hardship got worse	-0.224 (0.195)	-0.426 (0.248)	-0.349 (0.245)	-0.027 (0.215)
Social support	-0.085* (0.043)	-0.062 (0.057)	-0.094 (0.055)	-0.134** (0.046)
Any contact with a social worker	-0.001 (0.214)	-0.204 (0.283)	-0.101 (0.266)	0.224 (0.235)
Stress, wave 1	0.668*** (0.089)			
Anxiety, wave 1		0.621*** (0.095)		
Depression, wave 1			0.509*** (0.100)	
Symptoms, wave 1				0.718*** (0.087)
Constant	0.736 (0.554)	1.167 (0.695)	1.651* (0.750)	0.161 (0.552)
N	81	81	81	81
r ²	61.66	52.45	48.60	60.59

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Material hardship—reference category—not able to pay for expenses—no change since before COVID-19

Northern region. We created three measures of hardship, by number, chronicity and type. As expected, we found that the number of hardships had a negative effect on emotional wellbeing. Relatedly, we found that people who, despite the crisis, succeeded in paying household expenses both before and after COVID-19 began, showed lower levels of stress, anxiety, and depression, than others. Our findings thus support our expectations regarding the detrimental effect of long-term, chronic hardship. The highest levels of stress, anxiety, depression, and physical symptoms were manifest in the group that had difficulty meeting household expenses both prior to and after the start of the crisis. We can thus conclude that the long-term constant need to cope with material hardship has negative effects on emotional wellbeing among people living in poverty.

Table 8 statistically significant effects of type of material hardship on emotional wellbeing

	Wave 1				Wave 2			
	Stress	Depression	Anxiety	Physical Symptoms	Stress	Depression	Anxiety	Physical Symptoms
Food				+	+		+	+
Medication	+	+	+	+	+		+	+
Rent					+			+
Utilities				+	+	+	+	+
Loans	+	+		+	+	+		
Other	+	+	+	+				

This sample was composed of people living in poverty, some of whom usually manage to make ends meet in spite of their low income. They were hit less hard than those who experience chronic material hardship. These findings therefore support theories emphasizing the differences in the detrimental effects of persistent, long-term hardship versus those of temporary crises on emotional wellbeing (Bergmans & Wegryn-Jones, 2020; Bierman et al., 2021; Galea, 2019; Keily et al., 2015; Skapinkis, 2007; Weich & Lewis, 1998). Moreover, the effects of hardship on emotional wellbeing likewise differed by type of hardship, again as expected. Perhaps the study's most important finding is that these effects were more pronounced later, in Wave 2, pointing again to the detrimental effect of long-term, enduring, material hardship.

Although informal social support was found to positively affect emotional wellbeing, it could not nullify the negative effects of material hardship. These findings are consistent with other studies of social support and hardship (e.g., Harknett, 2006; Henly et al., 2005). The effect of formal social support, measured as any contact with a social worker, was not statistically significant throughout. This finding could have resulted from the insensitivity of our measure or because formal support does not vary substantially in this population of welfare clients. The results therefore invite further study regarding the role social service providers play in times of crisis.

Interestingly, the participants in our study tended to respond to COVID-19 more as an economic than a health crisis. Their responses may therefore reflect our questionnaire's focus on economic issues. Another possible explanation may rest in policy's focus on COVID as primarily a health risks for older adults (over age 65). Indeed, during the first months of the pandemic, the risk for older adults was the primary justification for lockdowns and social distancing. As our sample population was relatively young, it may be that their experiences of the pandemic centered more on daily material hardships than on health issues.

7 Limitations and Recommendations for Further Research

The study's major limitations derived from the constraints posed by the realities of the crisis. Planning research during a pandemic requires flexibility due to unanticipated changes that may occur in the context studied (see methods section). The second limitation relates

to the small non-random sample (88 participants in wave 1; 82 in wave 2) and restricted population, people in poverty residing in Northern Israel. Nonetheless, our study benefited from the rich information collected from our small sample during the interviews. Participants responded to the questionnaires during a telephone interview, and elaborated on their experiences, voicing the ways they construct their experiences of the pandemic and the meanings that they attribute to them. Further study is needed with a larger sample, also chosen from additional areas in Israel. A future study should also include people who were not living in poverty before COVID-19 in order to examine how they fared as the pandemic evolved and whether it has long-term outcomes.

Moreover, our two measurements and their two-month interim are limited. Due to the pandemic's long-term implications; additional waves of data collection are warranted. Additional in-depth interviews with an expanded questionnaire may provide a richer picture of the relationship between material hardship and emotional wellbeing of people in poverty as conditions change.

8 Implications and Practical Recommendations

This study was motivated by our concern that people living in long-term poverty have few reserves to draw upon in times of crisis and may experience severe consequences. The results lead us to the following policy recommendations:

- (1) People in poverty generally experienced an increase in expenditures and decrease in income once COVID-19 erupted, both during and after lockdowns. As a group lacking financial reserves, people in poverty quickly found themselves facing greater material and emotional hardships. Furthermore, as the Wave 2 interviews indicated, most did not seem to recover even after the lessening of restrictions. This situation requires the development of policy and tools, such as financial grants, aimed at reducing a greater range of hardships, for the long as well as short term. Food provision is a necessary but insufficient tool because it does not address other hardships, such as the inability to pay for medications and rent. Reducing material hardship can also be seen as a major intervention that may lead to reduced emotional hardship.
- (2) Additional funds need to be allocated to families living in poverty, even those already receiving welfare benefits, as income from work dropped and receipt of services (e.g., school lunches) declined.
- (3) People in poverty are a heterogeneous group. Those among them experiencing chronic material hardship were found to be at the highest risk for deterioration of emotional wellbeing and thus require special attention to mental health issues during crises.

This study set out to explore the ways in which people living in poverty cope with a sudden crisis and how material hardship during this period affected their emotional wellbeing. The quantitative results highlight the relationship between material and emotional hardship, which may be generalizable to other economic crises, whereas the qualitative results also reflect concerns specific to COVID-19 lockdowns such as social distancing, isolation, and quarantine. The results, both qualitative and quantitative, demonstrate that this group generally experienced increased material hardship during and after the pandemic, and that such hardships had detrimental long-term effects on their emotional wellbeing.

These findings expose the fallacy of policymakers' assumption that welfare grants directed at people living in poverty were sufficient to survive the crisis. Instead, we found that the current provision of welfare grants and social services are insufficient in times of economic crisis. This study can therefore serve as a preliminary platform from which a vulnerable group that has not received sufficient public attention can voice their experiences of an international health crisis.

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