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ORIGINAL ARTICLE

Living Conditions and Psychological Distress in Latino Migrant Day Laborers: The Role of Cultural and Community Protective Factors

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Abstract The purpose of this study was to examine the relationship between typically difficult living conditions and psychological distress in Latino migrant day laborers (LMDLs), with attention to the potentially protective roles of contact with family in country of origin (i.e., communication, sending money, etc.), availability of local culture (i.e., food, music, people from one's country of origin), and utilization of community resources perceived to be culturally competent (i.e., services that are respectful, able to serve Latinos, able to solve problems, in Spanish, etc.). Participants were 344 LMDLs surveyed in the San Francisco Bay Area. As hypothesized: (a) difficult living conditions were related to depression, anxiety, and *desesperación* [desperation], the latter a popular Latino idiom of psychological distress recently validated on LMDLs; (b) contact with family moderated the relation between difficult living conditions and depression and *desesperación* but not anxiety and (c) access to local culture, and utilization of community resources, mediated the relation between difficult living conditions and depression and *desesperación* but not anxiety. Implications for intervening at local and larger levels in order to provide some protection against distress built into the LMDL experience in the United States are discussed.

Keywords Latino migrant day laborers · Living conditions · Psychological distress · Protective factors · Family · Cultural and community resources

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The purpose of this study was to examine the relationship between typically difficult living conditions and psychological distress in Latino migrant day laborers (LMDLs), with attention to the potentially protective roles of contact with family in country of origin (i.e., communication by phone/text, sending money, packages, visits, etc.), availability of local culture (i.e., food, music, fiestas, *paisanos*, or people from one's culture/country of origin), and utilization of community services perceived to be culturally competent (i.e., in Spanish, respectful, able to serve Latinos, able to solve problems, etc.). An overview of LMDLs in the United States is provided below with an emphasis on difficult working and living conditions, consequent psychological distress, and the role of potentially protective factors that may help to mitigate distress built into the LMDL experience in the United States.

Latino Migrant Day Laborers

A decade ago, the National Day Labor Survey (NDLS) (Valenzuela, Theodore, Meléndez & Gonzalez, 2006), estimated the LMDL population to exceed 117,000, with about a third residing in California (Gonzalez, 2007),

supplying cheap informal labor to housing and building construction industries, gardening and landscaping, furniture moving, and miscellaneous odd jobs. These men wait on street corners, in front of paint and hardware stores, for the chance to exchange labor for cash money in an effort to support families in countries of origin. Results from a California survey ($N = 481$), where the current study was conducted, found that 77% were Mexican and 20% Central American, 84% were undocumented, 34 years of age with 7 years of education on average, over half had been in the United States for <5 years, and 50% were married/partner (Valenzuela, 2003). While NDLS data are dated, they provide rare historical baseline survey data for comparison purposes.

LMDL Structural Vulnerability to Psychological Distress

We subscribe to a structural vulnerability framework to understand the *positionality* of LMDLs in the United States characterized by harsh living and working conditions that are produced and reproduced by particular sets of global economic, political and legal, social and cultural factors. For instance, while the North American Free Trade Agreement or NAFTA has contributed to vast unemployment in certain industrial sectors throughout Mexico (i.e., by importing goods and services that outcompete local counterparts), extremely few work VISAS are made available each year to the unemployed who migrate to the United States to work (Alvarado, 2008).

Our structural vulnerability framework is based on the work of Gupta, Parkhurst, Ogden, Aggleton and Mahal (2008) who conceptualize risk for health problems and HIV in particular on a continuum of causality ranging from distant structural environmental factors to proximal situational and individual level factors. For LMDLs, structural environmental factors include extremely limited access to work authorization resulting in a predominately undocumented population of workers experiencing underemployment and frequently unemployment, poor living conditions, prolonged separation from home and families, lives restricted by immigration surveillance, and limited access to cultural and community resources and services in the United States. Thus, structural vulnerability is inversely related to SES, health, and psychological distress for LMDLs.

Harsh Working Conditions

The literature on LMDLs documents the central role of poverty in the psychological distress of most LMDLs (Galvan, Wohl, Carlos & Chen, 2015; Organista et al., 2012; Valenzuela et al., 2006). For instance, a survey of 102 LMDLs in Berkeley, where participants were also recruited for the current study, found that unemployment, underemployment, and lack of money were the highest sources of distress followed by sadness and racism (Organista & Kubo, 2005). More recently, Galvan et al. (2015) found in their Los Angeles survey of 725 LMDLs that the highest level of chronic stress was associated with too little money for basic needs, lack of savings, worsening work hours, and immigration problems. Nearly three-quarters of this predominately undocumented sample (94%) reported earning <$10,000 in the previous year. Also in Los Angeles, Bacio, Moore, Karno and Ray's (2014) smaller survey ($N = 89$) found that work-related problems, daily hassles of being a day laborer, and missing family back home were inversely related to self-reported health, which was in turn negatively related to depression. In San Francisco, the second city from which participants in the current study were recruited, almost 60% of 100 LMDLs reported distressing unstable lives, relationship and communication problems, alcohol/substance use (Duke, Bourdeau & Hovey, 2010).

As indicated above, poverty-related distress in LMDLs is exacerbated by prolonged separations from home and family in countries of origin, typically lasting years given the cost and danger of undocumented border crossings. In a mixed method study of 150 Latino day laborers (LDL), Negi (2013) found that psychological distress was predicted by discrimination and social isolation or the frequency with which the men lacked company, felt alone and excluded, were challenged by finding someone that understands them. In-depth qualitative assessment of social isolation in a subsample revealed the following:

> Many indicated that social isolation, due to being far away from family members including parents, wives and children, caused them deep sadness. LDLs further conveyed that, while they would maintain contact with family by calling them often, communication became difficult as family members' idealized image of the United States, influenced by film and media, was in sharp contrast to LDLs' daily struggles. LDLs reported that during difficult times, such as periods of unemployment or when victimized by wage theft, they wouldn't call family in country of origin because "they wouldn't understand." In addition, LDLs would avoid discussing details of their daily struggles with family as they wanted to protect them from worrying about their health or general well-being. This would lead to lack of communication with family members, increasing feelings of isolation and compound their feelings of desesperación or despair (p. 171).

Disrupted Contact with Family

The above quote captures the vicious cycle that occurs when economic and personal problems frequently experienced by LMDLs result in less communication with family back home which in turn exacerbates feelings of isolation and distress. This downward spiral was also described by Walter, Bourgois, Loinaz and Schillinger (2002) who found that work injury was typically internalized as personal failure, inability to fulfill one's role as a man, thus resulting in shame, depression, and less communication with family back home. These LMDLs reported taking dangerous chances at work, despite lack of training and safety equipment, because of pressing financial need consistent with NDLS results (Valenzuela et al., 2006), which found that 20% of LMDLs reported work injury. A subsequent study of injured LMDLs by Walter, Bourgois and Loinaz (2004) found that anxiety, depression, alcohol and substance abuse accompanied work injury.

Desesperación

The quote from Negi's (2013) study above also conveys *desesperación* or the popular Latino cultural idiom of psychological distress frequently expressed by LMDLs (Organista, Arreola & Neilands, 2016) to refer to frustration resulting from poverty and limited ability to support families back home. The *desesperación* construct was recently validated on LMDLs by Organista et al. (2016) and was found to overlap with, yet be distinct from, depression and anxiety. It was also found to predict alcohol-related sexual risk taking, whereas depression and anxiety did not predict this risky outcome. Thus, *desesperación* is a culturally relevant form of psychological distress important to include in LMDL research both as a predictor factor and outcome variable.

Impoverished Living Conditions

Although LMDL research mentions poor living conditions such as overcrowded homes and apartments, substandard housing (e.g., garage), and homelessness (e.g., living in shelters, cars, under bridges, etc.) (Nelson, Schmotzer, Burgel, Crothers & White, 2012; Organista et al., 2012), little research has documented living conditions or their relations to compromised health or mental health. Our review located only one study of 217 LMDLs in San Francisco that assessed living conditions, frequency of obtaining work, number of dependents, self-perceived health, and utilization of health services (Nelson et al., 2012). Results revealed difficulty obtaining work (i.e., 1 out of 3 days on average when work was sought) and difficult living conditions: two-third shared apartments while the remaining reported homeless shelter (20%), living on the streets (9%), board or care facility (3%) alcohol/drug treatment facility (1%). Of those with stable housing, 70% shared a room with one to eight roommates (average of 2.5), and 12% shared a bed with someone who was not their partner/spouse. It was also found that "poor" to "fair" self-perceived health was associated with supporting three or more family members, yet participants were generally unaware of available health and social services (e.g., two-third could not name a social service beyond food or shelter services). Similar to Nelson et al. (2012), the current study assessed living conditions in order to explore their relation to psychological distress, as well as the potentially protective roles of contact with family and use of community resources implied in the above studies.

Potential Protective Factors

While Negi (2013) presented initial ethnographic evidence that LMDL well-being was enhanced by being part of local support networks (i.e., church, friends), in the absence of families, there continues to be a dearth of research on protective factors that could potentially mitigate distress built into the day labor experience. Only Bacio et al. (2014) set out to examine the potentially protective role of social support with regard to depression and problem drinking in LMDLs but could find none. Problematic was Bacio et al.'s (2014) use of a conventional scale of social support that assesses perceived support from family, friends, and significant others considering that for LMDLs such sources of support typically live thousands of miles away. Future studies should assess long-distance contact with family, access to local culture access, and community, resources and services utilization.

Purpose of the Current Study

While exploring dimensions of LMDL structural vulnerability is limited by cross-sectional survey data, our study aims to promote greater understanding by analyzing the relation between typically difficult living conditions and psychological distress, including the potentially protective role of contact with family in country of origin, and access to local cultural and use of community resources and services that that could help mitigate the negative impact of structurally vulnerable living conditions. Hence, the purpose of the current study was to test the following three hypotheses:

1. Difficult living conditions are related to psychological distress in LMDLs.

2. Greater contact with family in country of origin moderates the relation between difficult living conditions and psychological distress.
3. Access to local cultural and utilization of community resources and services mediates the relation between difficult living conditions and psychological distress.

Methods

Study Design

A cross-sectional survey of major LMDL work pick-up sites in San Francisco/Colma and Berkeley was conducted over a 6-month period from February to July 2014. In San Francisco, the four most active and populated work pick-up sites were sampled until interviewers exhausted available and interested day laborers. These sites included one large site located within and on the streets surrounding our community partner, the San Francisco Day Labor Program (four to six dozen workers waiting each morning, on average), two small sites (12–18 workers, on average) and one medium-sized work pick-up site (two to three dozen, on average). A work pick-up site in city of Colma was added when it was discovered that younger day laborers from San Francisco frequented this medium-sized site bordering San Francisco. In Berkeley, the one large site, surrounding our community partner agency, and spanning the six to eight blocks along Hearst Street corridor, was similarly surveyed.

The current study is part of a larger mixed methods research project designed to develop and test a structural environmental model of alcohol-related HIV risk in LMDLs. The current study tests key relationships between difficult living conditions and multiple indices of psychological distress, and the potentially protective roles of contact with family, availability of local cultural activities, and use of community resources as elaborated below.

Participants

Participants were 344 LMDLs, 261 (76%) from San Francisco/Colma and 82 (24%) from Berkeley, proportions sampled to reflect proportionate differences in city sizes in square miles (i.e., 49 & 10.5, respectively): San Francisco is 78% larger than Berkeley, which in turn is 22% the size of the former. Proportions of LMDLs sampled from San Francisco and Berkeley are also consistent with our observations of population size differences between the two cities over our past decade of research with this population. To participate, LMDLs had to be Latino male day laborers 18 years of age or older, speak Spanish, earn more than 50% of their income from day labor, and have worked at least three different jobs in the past 6 months, but none more than 2 months. Inclusionary criteria were intended to approximate "full-time" day labor status versus a few who use day labor to supplement regular part-time or full-time work. While a total of 346 LMDLs were surveyed, data from two participants were excluded when it became apparent during the interviews that one man was inebriated while the other did not understand the questions (i.e., answering "Don't know" to most items until the interview was terminated).

Procedures

Participants were recruited using convenience sampling informed by: (a) regular research team meetings to monitor and adjust proportions of participants from San Francisco and Berkeley as well as background characteristics; (b) over a decade of previous LMDL survey research by team members in San Francisco (Quesada, 2011) and Berkeley (Organista & Kubo, 2005) that familiarized us with locations and sizes of work pickup sites; (c) knowledge of study population by our three LMDL-serving community partners; and (d) 3 years of pre-survey ethnographic research conducted by our research team. These multiple sources of information and experience allowed our team to map out in advance and reconfirm through naturalistic and participant observation, the most active and populated work pick-up sites to sample and adjust sampling when necessary.

Our three subcontracted community partner agencies, each of which serves LMDLs in various capacities, facilitated recruitment by introducing our study and team to LMDLs both inside the agency as well as outside at pick-up sites for 3 years prior to the survey, during which we conducted ethnography in order to develop our survey instrument (i.e., selection of existing scales and development of new scales described below). Thus, when potential survey participants were approached by interviewers, most were familiar with our presence in the community and our study was described as learning about the day laborer experience, including health and mental health, sexual experience, alcohol and substance consumption.

Interviewers screened potential participants by reading a script that briefly describes the study, inclusionary criteria, voluntary and anonymous nature of study, and offering an incentive of $40 for participating in the survey. If interested, the majority of participants were escorted to nearby private offices within our community partner agencies where the interviewer read them informed consent and, if agreeable, administered the survey in Spanish using a computerized laptop version of the survey instrument. Only about 10% of interviews (i.e., when agency

was too far from work pick up site) were conducted in nearby cafes screened in advance for sufficient quietness and privacy and café owner consent. There were no refusals to participate; only rarely (<5%) was the opportunity to work chosen over participation.

Interviewers were a team of predominately Bachelor's level, bilingual and bicultural Latino young adults trained to recruit, screen, and administer the survey. Included was a middle-aged day laborer referred by a community partner agency to participate as an expert informant and member of the interview team.

Measures

Demographic and Migration Background Characteristics

Demographic background characteristics, such as age, education, marital status, were collected in addition to population specific variables, such as country of origin, language fluency (e.g., Spanish, English), ethnicity (e.g., indigenous), history of migration to the United States, etc. To assess documentation status, five items were adapted from the NDLS (e.g., citizenship, work authorization, asylum status, etc.) and updated to reflect newer forms of documentation (e.g., U-visas for victims of violent crime; the 2012 Deferred Action for Childhood Arrivals program).

Items generated by the research team for developing new scales of LMDL living conditions, contact with family, availability of local culture, and use of community services perceived to be culturally competent involved reviewing qualitative data generated from the ethnographic phase of the larger study, from which the current study comes from, consulting the literature on LMDLs, and using our collective knowledge as a team of predominately Latino researchers. This triangulation of data to generate survey items was enhanced by six pre-survey cognitive interviews with LMDLs in order to refine and finalize items selected to compose new scales described below.

Living Conditions

Items were developed by the research team to assess current living situation including types of housing, crowdedness, privacy, safety and violence, homelessness, etc. (Table 2). Most items were adapted from Nelson et al.'s (2012) assessment of LMDL housing, with additional items tapping the dangers of living in lower income and higher crime areas, difficulties with roommates, concerns frequently expressed by participants with housing during the ethnographic phase of the larger study, from which this study comes from. Exploratory factor analysis (EFA) performed on all scalable items yielded a single-factor 6-item scale, with fair internal consistency reliability (coefficient alpha = .71, Mean = 2.77, Standard Deviation (*SD*) = .63). These items captured personal feelings such as the degree to which participants felt like where they were living was home, how safe they considered their living situation, and whether they felt lonely despite having roommates. Items also captured the quality of interpersonal relationships: How much they trusted roommates, amount of problems with roommates, and how well they got along with or those around their living situation if no roommates (all items were arranged on 5-point scales with response options ranging from "Not at all" to "Very much").

Psychological Distress

Depression. Symptoms of depression were assessed with the 10-item version of the Center for Epidemiological Studies Depression Scale (CES-D), known as the Boston short-form CES-D (Kohout, Berkman, Evans & Cornoni-Huntley, 1993). This version was selected based on its satisfactory psychometric comparison to the full (20 items) CES-D when used with Mexican migrants (Grzywacz, Hovey, Seligman, Arcury & Quandt, 2006). The CES-D assesses how often, over the past week, a person has experienced symptoms of depression such as restless sleep, poor appetite, feeling lonely; each with the following response options: 0 = Rarely or None of the time, 1 = Some or Little of the time, 2 = Moderately or Much of the time, 3 = Most or Almost all the time. Scores range from 0 to 30 with higher scores indicating greater depressive symptoms. A slight alteration of items was made by our team from the first person verb form (i.e., "During the past week, I felt depressed") to the second person ("During the past week, you felt depressed") to be consistent with the rest of our survey instrument. The CES-D evidenced high internal reliability consistency with our sample as indicated by an alpha coefficient of .82 (Mean = 0.77, *SD* = .54).

Desesperación. Organista et al.'s (2016) scale of *Desesperación*, developed for LMDLs, was used to assess this popular Latino idiom of psychological distress. The scale consists of 13 items that assesses negative moods such as frustration, feeling overwhelmed or disappointment in response to thwarted migration-related goals such as not progressing in life, not earning money needed, etc.; (Mean = 1.52, *SD* = .67). Organista et al. (2016) reported that EFA revealed a two-factor structure yielding two subscales labeled *frustration* and *dissatisfaction*, each with good internal consistency reliability (Cronbach's coefficient alphas = .84 & .73, Mean = 1.39 & 1.81, *SD* = .76 & .84, respectively). Examples of *frustration*

subscale items include, "How often do you feel frustrated by the lack of progress in your life?" and "How often do you feel angry about not earning the money that you need?" Examples of reverse scored *Dissatisfaction* subscale items include, "How often do you feel satisfied with the progress in your life?" and "How often do you feel content with your situation here in the United States?" All items are arranged on 5-point Likert scale ranging from "All of the time" to "Never" with "Sometimes" as a midpoint. The relations between Living Conditions and each subscale were analyzed in this study, in addition to the full scale of *Desesperación*, as described in Analysis of data section below.

Anxiety. Anxiety symptoms were assessed by the 7-item Generalized Anxiety Disorder screening instrument (GAD-7) (Spitzer, Kroenke, Williams & Löwe, 2006), Spanish version, available from publishers at http://www.phqscreeners.com/. Scores are calculated by assigning scores of 0, 1, 2, and 3, to the response categories of "Not at all," "Several days," "More than half the days," and "Nearly every day", respectively. Total GAD-7 scores ranged from 0 to 21 with cutoff scores of 5, 10, and 15 indicating mild, moderate, and severe anxiety, respectively. A coefficient alpha of .85 indicated high internal consistency reliability with our sample (Mean = 0.66, *SD* = .60).

Protective Factors

Contact with family. Items were developed by the research team to capture the experience of being separated from family including the frequency of various forms of contact and communication (e.g., by phone, Internet, mailing packages, money, etc.), potential obstacles to communication (e.g., expense, lack of phones and computers back home, etc.), potential impact of problems on communication (e.g., "How does it affect frequency of communication when you have not been working?" and "Not sending money back home?"), and frequency of missing important events back home.

Exploratory factor analysis yielded a scale of fair reliability (coefficient alpha = .67) composed of three factors or subscales (Mean = 1.96, *SD* = .44). The first subscale, labeled *Communication Mitigating Problems*, had an alpha of .69, and consisted of five items that assessed the degree to which personal problems (e.g., "Haven't been able to find work"; "Haven't been able to send money home") affected frequency of communication with family (responses arranged on 5-point scales from "A lot more frequently" to "A lot less frequently" with "Same as always" as a midpoint) (Mean = 1.68, *SD* = .56). The second subscale, *Missed Important Events*, had an alpha of .70, and consisted of four items that assessed the frequency with which participants could not attend important events back home (e.g., birth or graduation, grave illness or death of someone close, etc.) (Mean = 2.45, *SD* = .84). Responses were arranged on 5-point scales ranging from "Never" to "10 or more times" with two to three times as a midpoint. The third subscale, *Contact by Phone and Mail*, had an alpha coefficient of .71 and consisted of four items that assessed the frequency with which participants spoke with family by phone or text, sent money, and exchanged messages through Internet using email, Facebook, or other social network programs (5-point scale from "Almost daily" to "Never" with "Monthly" as the midpoint) (Mean = 1.51, *SD* = .82).

Cultural and community resources. Items were developed by the research team to assess access to, utilization of, and satisfaction with a broad variety of local cultural and community resources. EFA yielded a scale with good internal consistency reliability (.80) composed of two factors or subscales (Mean = 2.27, *SD* = .62). The first, labeled *Cultural Resources*, had an alpha of .67, and consisted of four items that assessed the ease with which participants could access food, music, fiestas, and *paisanos* or people from their country of origin (arranged on 5-point scales from "Very easy" to "Very difficult" with "Neither easy nor difficult" as a midpoint) (Mean = 2.27, *SD* = .91). The second subscale, *Culturally Competent Services*, had an alpha of .81, and consisted of seven items that assessed the frequency with which services utilized by participants were in Spanish, respectful, able to serve Latinos, able to solve problems, had flexible hours, did not keep people waiting long, etc. (Mean = 2.27, *SD* = .68). These were also concerns frequently expressed by LMDLs during the ethnographic phase of the larger study from which the current study comes from.

Statistical Analysis

We computed one-way frequencies and measures of central tendency and variability to characterize the sample in terms of background demographics and migration-related characteristics (Table 1). To test Hypothesis 1 (i.e., living conditions are related to psychological distress), we generated a Pearson correlation matrix to examine the significance of associations between Living Conditions and the following psychological distress variables from our survey: *Depression*, *Anxiety*, *Desesperación* (full scale) as well as the latter's separate subscales *Desesperación-frustration* and *Desesperación-dissatisfaction*. We included the *Desesperación* subscales based on results from Organista et al. (2016) who found that the *Desesperación-dissatisfaction* subscale predicted alcohol-related sexual risk taking in LMDLs while the full *Desesperación* scale and *Desesperación-frustration* subscale did not. Thus, it is important to continue exploring this

Table 1 Background characteristics of Latino migrant day laborers in the San Francisco Bay Area (N = 344)

Characteristic	%	Mean	*SD*
Recruitment site			
San Francisco/Colma	75.9	–	–
Berkeley	24.1		
Nationality			
Mexican	46.5	–	–
Guatemalan	30.8		
Salvadoran	11.6		
Honduran	7.3		
Other	3.8		
Age at interview			
18–19	1.2	40.5	10.8
20–29	14.3		
30–39	33.7		
40–49	29.8		
50–59	18.3		
60–81	3.5		
Years in United States			
<1–4	12.5	14.0	9.5
5–9	24.7		
10–19	40.7		
20–54	22.1		
Indigenous identity			
Non-indigenous	87.8	–	–
Indigenous	12.2		
Documentation status			
Undocumented	91.9	–	–
Green card	4.4		
Other residency	2.7		
Citizen	1.0		
Years of schooling completed			
≤6	48.6	7.3	3.4
≥7	46.5		

Latino idiom of psychological distress, including its two dimensions, previously validated on a sample of LMDLs.

To test Hypothesis 2 (i.e., more contact with family will moderate the relation between living conditions and psychological distress), we used moderation analysis to examine whether *Contact with Family* moderates the effect of *Living Conditions* on psychological distress (Fig. 1). *Contact with Family* is considered a moderator variable because it is viewed as a third variable affecting the relationship between *Living Conditions* and psychological distress by interacting with *Living Conditions* and thus indirectly rather than directly affecting psychological distress. We repeated separate moderation analyses for each of the psychological distress outcomes variables.

Two different analyses were used to test Hypothesis 3 (i.e., access to cultural, and utilization of community, resources will mediate the relation between living conditions and psychological distress). First, mediation analysis was used to test whether *Cultural and Community Resources* mediates the effect of *Living Conditions* on psychological distress outcomes (Fig. 2). *Cultural and Community Resources* is considered a mediator variable because, like *Living Conditions*, it is hypothesized to lie on the direct causal pathway to psychological distress, and is thus directly related to both *Living Conditions* and psychological distress. Separate mediation analyses were repeated for each of the psychological distress outcome variables. Direct, indirect, and total effects were estimated to investigate the mediation of the relationship between *Living Conditions* and psychological distress via *Cultural and Community Resources*. To obtain appropriate asymmetric confidence intervals for indirect effects, we used the bias-corrected bootstrap 95% confidence intervals based on 5000 bootstrap replications. If the bias-corrected interval excluded zero, mediation was present.

Next, we used moderation analysis to assess whether *Cultural and Community Resources* moderated the effect of *Living Conditions* on psychological distress by interacting with *Living Conditions* to affect psychological distress. Separate moderation analyses were repeated for each of the psychological distress outcome variables.

Statistical analyses were conducted using Stata 13.1 (StataCorp., College Station, TX). This study was approved by the Institutional Review Board at the University of California, Berkeley.

Results

Sample Characteristics

As seen in Table 1, LMDLs in the current study were about half Mexican and half Central American, over 90% undocumented, 40.5 years of age with 7.3 years of education on average, 15% in the US for <5 years, and just under half married or partnered. Compared to the NDLS (Valenzuela et al., 2006), our sample is older with more years in the United States, composing an aging segmented population with the greater proportion of Central Americans reflective of the Bay Area's history as a popular destination for such immigrants.

General Description of Living Conditions

As seen in Table 2, while about two-third (n = 224) of the participants were housed (apartment, house), the remaining one-third (n = 120) were either marginally housed (e.g., garage, transitional housing) or homeless (living on street, in car or shelter). Over half reported spending at least one night homeless since migrating to the United States. For housed LMDLs, living space was shared with an average of 4.6 other people, indicating crowded conditions. Over 20% reported between "a little" and "a lot" of danger of being attacked by people where they reside/sleep, about 50% reported having no safe

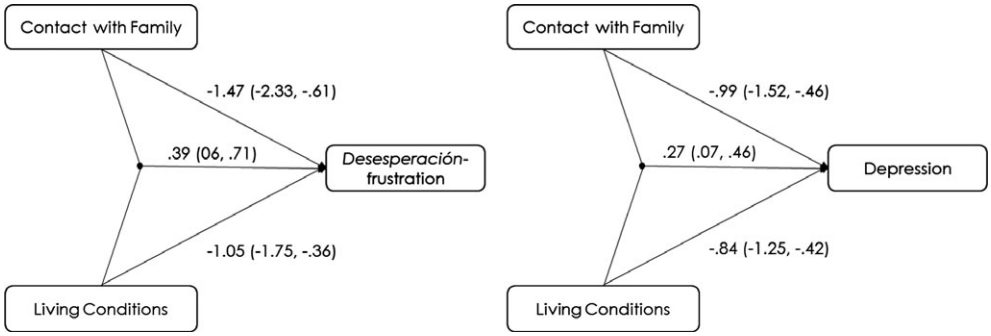

Fig. 1 Moderation pathways for Contact with Family hypothesized to moderate the relationship between difficult Living Conditions and psychological distress for Latino migrant day laborers in the San Francisco Bay Area (n = 224)

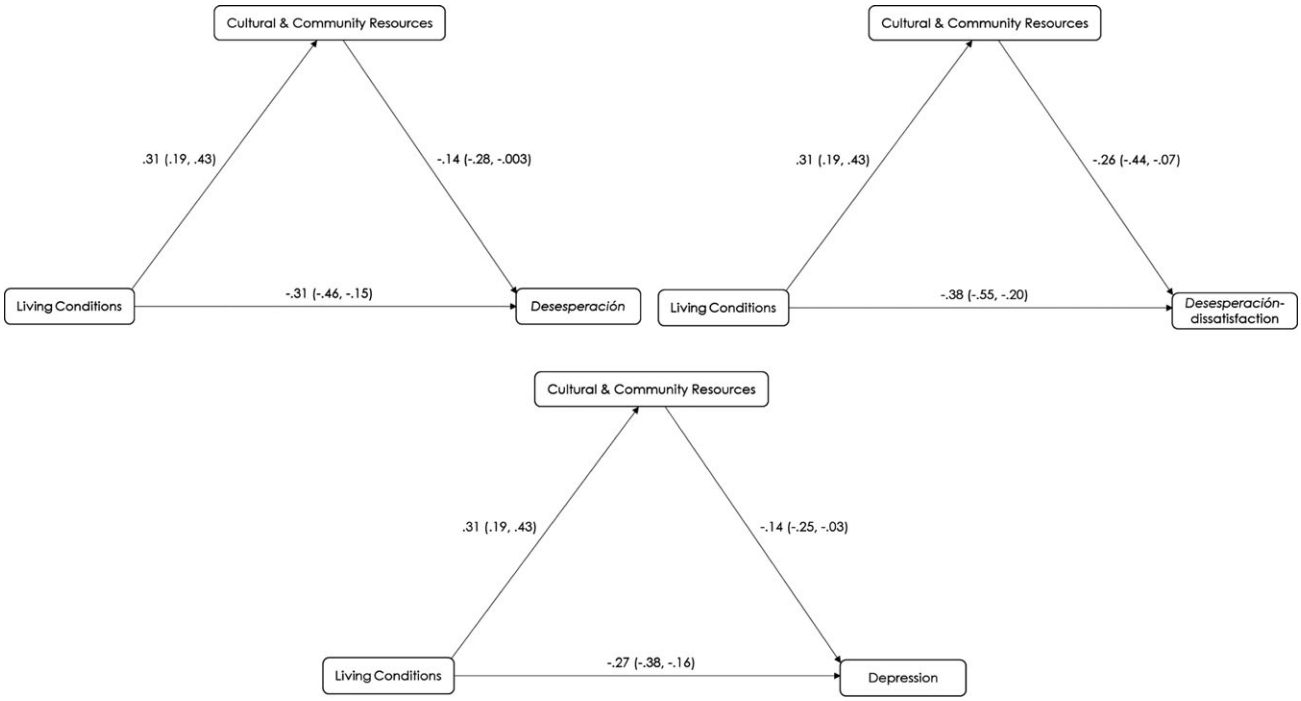

Fig. 2 Mediation pathways for Cultural and Community Resources hypothesized to mediate the relationship between difficult Living Conditions and psychological distress for Latino migrant day laborers in the San Francisco Bay Area (n = 220)

place to store valuables, and about a quarter reported no secure place to receive important mail. For testing Hypotheses 1 and 2, analyses are based on the 224 LMDLs that reported housing and related difficulties as described above. For Hypothesis 3, four participants answered "don't know" to some of the items in the *Cultural and Community Resources* scale, reducing the housed subsample just slightly to 220 participants.

Living Conditions and Psychological Distress (Hypothesis 1)

In order to test Hypothesis 1, whether difficult *Living Conditions* are related to psychological distress, Pearson's correlation analysis revealed significant negative relations between *Living Conditions* and *Depression* ($r = -.38$, $p < .0001$), *Desesperación* full scale ($r = -.25$, $p < .0001$), the *Desesperación-dissatisfaction* subscale ($r = -.34$, $p < .0001$), the *Desesperación-frustration* subscale ($r = -.26$, $p = .0001$), and *Anxiety* ($r = -.20$, $p = .0025$) (Table 3). Thus, Hypothesis 1 was supported in demonstrating that as *Living Conditions* become more difficult, psychological distress increases for LMDLs. Tests of moderation and mediation to address Hypotheses 2 and 3, were conducted for all psychological distress variables.

Contact with Family Moderates the Relation Between Living Conditions and Psychological Distress (Hypothesis 2)

Table 2 Living conditions of Latino migrant day laborers in the San Francisco Bay Area (N = 344)

Living Condition	*n* (%)
Where do you usually sleep?	
Housed (apartment, house)	223 (64.8%)
Marginally housed (garage, transitional housing)	61 (17.7%)
Homeless (Where exactly do you sleep?):	60 (17.4%)
Street	21 (35.0%)
Shelter	24 (40.0%)
Car	12 (20.0%)
Other (outside church; where I'm permitted; etc.)	3 (5.0%)
Crowdedness: Share housing/marginal housing with other people?	224 (65.1%)
Share living space with how many others? (*M*; *SD*)	4.56 (3.26)
Share room or sleeping space	149 (66.5%)
Transience among housed and marginally housed (n = 284)	
<1 year at current residence	73 (25.7%)
Spent ≥1 nights on the street or in a shelter	155 (54.6%)
Amount of monthly rent (*M*; *SD*)	$327 ($221.47)
Number of times moved in last year – *M* (*SD*), Range	2.04 (2.98), 0–25
Perceived danger of being attacked by people in place where you sleep	
No danger at all	220/284 (77.5%)
A little danger	25/284 (8.8%)
Some	23/284 (8.1%)
Much	9/284 (3.2%)
A lot of danger	7/284 (2.5%)
No safe place to store valuables	169 (49.1%)
No secure address to receive important mail	87 (25.6%)
Perceived safety of area where you live	
Very safe	22 (6.4%)
Safe	122 (35.5%)
Neither safe, not unsafe	54 (15.7%)
Unsafe	107 (31.1%)
Very unsafe	39 (11.3%)

To address Hypothesis 2, whether *Contact with Family* moderates the effect of difficult *Living Conditions* on psychological distress, moderation analyses revealed that *Contact with Family* significantly moderated the effect of *Living Conditions* on *Depression* (B = .27, 95% CI = .07, .46, p = .009), as well as the *Desesperación-frustration* subscale (B = .39, 95% CI = .06, .71, p = .020). *Contact with Family* did not moderate the relationship between *Living Conditions* and *Anxiety*, the *Desesperación-dissatisfaction* subscale (B = −.31, 95% CI = −.63, .002, p = .051), or the full *Desesperación* scale (B = .17, 95% CI = −.11, .45, p = .227). Thus, Hypothesis 2 was supported because as *Living Conditions* become more difficult, *Contact with Family* increases, and *Depression* and *Desesperación-frustration* decrease (see Table 4 for summary of moderation results).

Cultural and Community Resources Mediate Relation Between Living Conditions and Psychological Distress (Hypothesis 3)

To test Hypothesis 3, whether *Cultural and Community Resources* mediates the effect of *Living Conditions* on psychological distress, mediation analyses revealed a significantly negative direct effect of *Living Conditions* on *Depression* (B = −.27, 95% CI = −.38, −.16), indirect negative effect of *Living Conditions* on *Depression* via *Cultural and Community Resources* (B = −.04, 95% CI = −.08, −.01), and total negative effect of *Living Conditions* on *Depression* at the 5% level (B = −.31, 95% CI = −.41, −.21). Thus, partial mediation is present because although the direct effect is smaller than the total effect, it remains significant.

Similarly, we found a significantly negative direct of effect of *Living Conditions* on *Desesperación* full scale (B = −.31, 95% CI = −.46, −.15), indirect negative effect of *Living Conditions* on *Desesperación* via *Cultural and Community Resources* (B = −.04, 95% CI = −.09, −.01), and total negative effect of *Living Conditions* on *Desesperación* at the 5% level (B = −.35, 95% CI = −.49, −.20). Hence, partial mediation is again present because while the direct effect is smaller than the total effect, it remains significant.

Table 3 Pearson's correlation matrix for living conditions and psychological distress variables in Latino migrant day laborers in the San Francisco Bay Area (n = 224)

Item	Living Conditions	*Desesperación* (full scale)	*Desesperación-frustration*	*Desesperación-dissatisfaction*	Depression	Anxiety
Living Conditions	1.00	<.0001	.0001	<.0001	<.0001	.0025
Desesperación (full scale)	−.3380	1.00	<.0001	<.0001	<.0001	<.0001
Desesperación-frustration	−.2587	.9351	1.00	<.0001	<.0001	<.0001
Desesperación-dissatisfaction	−.3322	.6915	.3907	1.00	<.0001	.0002
Depression	−.3808	.7010	.6706	.4540	1.00	<.0001
Anxiety	−.2010	.5945	.6587	.2016	.6989	1.00

Pearson's correlations appear below the upper left to lower right diagonal of the matrix while p-values for correlations appear above the diagonal. Data for living conditions were available for the 224 Latino migrant day laborers who reported housing.

Table 4 Mediation and moderation analyses for living conditions and psychological distress variables in Latino migrant day laborers in the San Francisco Bay Area (n = 224)

Psychological distress	Direct effect *B* (95% CI)	Indirect effect *B* (95% CI)	Total effect *B* (95% CI)
Mediation analysis			
Desesperación (full scale)	−.31 (−.46, −.15)	−.04 (−.09, −.01)	−.35 (−.49, −.20)
Desesperación-frustration	−.27 (−.44, −.09)	−.03 (−.08, .02)	−.30 (−.47, −.13)
Desesperación-dissatisfaction	−.38 (−.55, −.20)	−.08 (−.15, −.03)	−.46 (−.62, −.29)
Depression	−.27 (−.38, −.16)	−.04 (−.08, −.01)	−.31 (−.41, −.21)
Anxiety	−.18 (−.32, −.05)	−.01 (−.04, .03)	−.19 (−.32, −.05)
Moderation analysis			
Desesperación (full scale)	−.31 (−.46, −.15)	–	–
Desesperación-frustration	−.27 (−.44, −.09)	–	–
Desesperación-dissatisfaction	−.38 (−.55, −.20)	–	–
Depression	−.27 (−.38, −.16)	–	–
Anxiety	−.18 (−.32, −.05)	–	–

Effects with 95% confidence intervals which do not include zero are statistically significant at $p < .05$. Data for living conditions were available for the 224 Latino migrant day laborers who reported housing.

Subsequent mediation analysis including the *Desesperación* subscales revealed a negative significant direct effect of *Living Conditions* on *Desesperación-dissatisfaction* ($B = -.38$, 95% CI = −.55, −.20), a negative indirect effect of *Living Conditions* on *Desesperación-dissatisfaction* via *Cultural and Community Resources* ($B = -.08$, 95% CI = −.15, −.03), and total negative effect of *Living Conditions* on *Desesperación-dissatisfaction* at the 5% level ($B = -.46$, 95% CI = −.62, −.29). Thus, partial mediation is present for this subscale of *Desesperación*. In contrast, results revealed a significant negative direct effect of *Living Conditions* on *Desesperación-frustration* ($B = -.27$, 95% CI = −.44, −.09) and a non-significant negative indirect effect of *Living Conditions* on *Desesperación-frustration* via *Cultural and Community Resources* ($B = -.03$, 95% CI = −.08, .02). Interestingly, the total negative effect of *Living Conditions* on *Desesperación-frustration* was significant at the 5% level ($B = -.30$, 95% CI = −.47, −.13). There is no indirect relationship of *Living Conditions on Desesperación-frustration*. Finally, mediation analysis including *Anxiety* as the psychological distress outcome variable revealed that *Cultural and Community Resources* did not mediate the relationship between *Living Conditions* and *Anxiety* (see Table 4 for summary of mediation results).

Thus, overall, *Cultural and Community Resources* partially mediated the relationship between *Living Conditions* and psychological distress. Therefore, Hypothesis 3 was supported because as *Living Conditions* become more difficult and access to local cultural and use of community resources increase, *Depression*, *Desesperación* full scale and *Desesperación- dissatisfaction* subscale, all decrease.

Results of analyses to test whether *Cultural and Community Resources* also moderated the relation between *Living Conditions* and psychological distress were all non-significant. Hence, *Cultural and Community Resources* only meditates the relationship between difficult living conditions and psychological distress.

Discussion

This study examined the relationship between typically difficult living conditions and psychological distress in LMDLs, as well as the protective roles of contact with family (e.g., via phone, letters, visits, sending money/packages, etc.), access to local cultural resources (i.e., foods, music, celebrations, *paisanos*, or people from one's country of origin), and the use of community services perceived to be culturally competent (e.g., provided in Spanish, know how to serve Latinos, helpful in solving problems, etc.). As hypothesized, difficult living conditions were related to both depression and *desesperación*. The latter is a popular Latino idiom of distress for which LMDLs refers to frustration and dissatisfaction with the progress in one's life especially regarding the migration-related goals of earning money and supporting one's family in country of origin (Organista et al., 2016). Anxiety was unrelated to living conditions perhaps because depression and *desesperación* better capture distress related to difficult living conditions (i.e., greater sadness and despair over one's situation in the United States relative to worry and feelings of tension). The LMDL literature reported more depression and *desesperación* relative to anxiety (Bacio et al., 2014; Negi, 2013; Organista & Kubo, 2005; Organista et al., 2016), although Walter et al. (2004) did find anxiety, as well as alcohol/substance use, in response to work injury. More research on anxiety and its circumstances and triggers is needed.

Given the LMDL imperative of coming to the United States to support one's family back home, we also found support for our second hypothesis. *Contact with Family* (e.g., frequency of sending money, visiting, communicating by phone, etc.) protects LMDLs from psychological distress related to living conditions which was the case with respect to *Depression* and the *frustration* subscale of *Desesperación*, but not the *Desesperación* full scale or its *dissatisfaction* subscale. Interestingly, Organista et al. (2016) found that only the *dissatisfaction* subscale predicted alcohol-related sexual risk taking in LMDLs, whereas the *frustration* subscale and *Desesperación* full scale did not. Thus, these two dimensions of *Desesperación* appear to be related to different risk factors and outcome variables warranting further research on this popular Latino idiom of psychological distress.

In addition to the protective role of contact with family, we also found support for our third hypothesis. Access to local cultural resources from one's country/culture of origin (food, music, fiestas, *paisanos*, etc.) in addition to utilizing culturally competent community services, protected against *Depression*, *Desesperación* full scale, and *Desesperación-dissatisfaction* subscale related to difficult living conditions. This finding is particularly important given the frequency with which LMDLs suffer as a result of limited work and earnings, consequent poor living conditions, and frequent inability to support families back home (Galvan et al., 2015; Organista et al., 2012; Valenzuela et al., 2006). Efforts to increase the availability of culturally familiar resources and culturally competent services as well as connections to these community resources (e.g., via the outreach efforts of service providers including community health promoters or *promotores*) are needed in order to help mitigate the distress built into the LMDL experience.

For example, our LMDL-serving community partners employ Spanish speaking outreach workers that engage day laborers in a broad variety of services ranging from work-related support (i.e., organizing LMDLs waiting for work, advertising their labor, addressing employer wage theft, providing vocational English classes) to accommodating basic needs (i.e., providing free lunches, showers, lockers to store items, lounge area for relaxing), as well as providing basic health care (medical check-ups; presentations on lead poisoning for painters, diabetes, HIV, etc.), and recreational outlets (i.e., organization of regular weekend soccer games). Our LMDLs are also fortunate to live in the San Francisco Bay Area rich in Mexican and Central American populations, cuisine, music, festivals, etc.; to which LMDLs can avail themselves.

The above outreach and direct service efforts should also prioritize supporting LMDLs in maintaining contact with family in their country of origin, particularly when they are not earning and sending money back home in order to avoid or disrupt the vicious cycle of distress resulting in communication breakdown, and vice-versa, as documented in the LMDL literature (Negi, 2013; Walter et al., 2004). Family contact could be supported in a number of ways ranging from encouragement to providing disposable cell phones and/or phone cards, assisting LMDLs with virtual family visits via Skype, or similar online platforms. However, despite all of the above direct services, individual-level implications are likely to have diminishing returns unless the structural vulnerability of LMDLs is diminished via macro-level policy interventions such as greater work authorization availability. The latter could have a sweeping population-wide impact on improving the harsh working and living conditions of LMDLs in the United States, as well as facilitating travel back and forth across the border to visit home and family in country of origin.

Findings and implications of the current study are limited in a variety of ways, including the cross-sectional nature of the survey data, which precludes causal interpretations and convenience sampling utilized in a specific geographical region and limiting the generalizability of findings. However, as framed by Organista et al.'s (2012) model of structural vulnerability, the living and working conditions of predominately undocumented LMDLs are remarkably similar across different United States city and state settings. In fact, the San Francisco Bay Area may be "As good as it gets" (Quesada et al., 2014) for LMDLs as compared to states with more severe immigration control policies, such as Arizona, which prohibits day laborers from soliciting work in public, and disallows operating day labor centers that typically support LMDLs in myriad ways beyond organizing work (i.e., health education, wage theft recovery, etc.).

Other limitations include the scale of *Living Conditions*, which while meeting the criteria of a scalable index, with acceptable psychometric properties, assessed only the difficulties of housed LMDLs who comprised two-thirds of the sample. While this scale did not capture the difficulties of marginally housed and homeless LMDLs in the sample, its significant associations with measures of psychological distress indicate the distressing difficulty of living conditions for LMDLs who are relatively better off in terms of housing. Future research would do well to develop and employ more robust and multi-dimensional measures of this important environmental contextual variable in the LMDL experience, as well as continue testing potential protective factors such as those found to be relevant and significant in this study.

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Conflict of Interest

The authors declare that they have no conflict of interest.

Compliance with Ethical Standards

We have complied with APA ethical principles in their treatment of individuals participating in the research described in the manuscript. The research has been approved by the Institutional Review Board from the University of California, Berkeley. To obtain informed consent, interviewers first screened potential participants by reading a script that briefly describes the study, inclusionary criteria, voluntary and anonymous nature of study, and offering an incentive of $40 for participating in the survey. If participants were interested, they were then escorted to nearby private offices within our community partner agencies where the interviewer read them informed consent. If individuals agreed to participate, study interviewers administered the survey in Spanish using a computerized laptop version of the survey instrument.

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