Enjoyment and meaning in daily activities among caregivers of orphaned and separated children in four countries

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ABSTRACT

Introduction: There are many orphaned and separated children (OSC) in the world and caregivers play a crucial role in raising them. Frameworks on employee mental health incorporate elements of both enjoyment/difficulties and values (i.e., hedonic and eudaimonic elements), yet existing studies focus on caregivers' mental illness and overlook their specific work activities.

Methods: We collected diary activity log, survey, and interview data from caregivers from five geographic locations: Hyderabad, India; Nagaland, India; Ethiopia; Kenya; and Cambodia. We coded and calculated the amount of time spent on five frequent activities: cleaning, cooking, caring for children, supervising children, and informal educational activities. We calculated the mean scores of perceived importance, meaningfulness, enjoyment, and unpleasantness for each of the five activities by geographic location.

Results: A total of 82 participants completed surveys and activity logs, and 69 of them participated in interviews. Mean time spent per day for the five activities combined ranged from 4.4 h (Nagaland) to 9.0 h (Ethiopia). Cooking and cleaning constituted a large portion of caregivers' days, ranging from 0.8 h per caregiver per day in Nagaland to 4.7 h in Cambodia, and informal educational activities (such as advising, teaching children their letters, and teaching from religious texts) constituted the least time, ranging from 0.1 h per caregiver per day in Hyderabad to 1.1 h in Nagaland. Participants rated all activities high in importance, with cleaning being relatively lower. Overall, enjoyment scores were lower than importance and meaningfulness scores. Informal educational activities had the highest enjoyment scores in three locations, whereas supervising children did in two locations. Participants rated cleaning as the most unpleasant activity in each geographic region except Cambodia, where it was rated on par with educational activities.

Discussion: OSC caregivers consider several regular activities to be very important and meaningful. Enjoyment may be improved through additional support in child behavior management or spending more time providing informal educational activities; at minimum, caregiver mental health should be considered before turning informal educational activities over to volunteers.

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1. Introduction

Based on a report by UNICEF (2018), there were about 140 million orphaned and separated children (OSC) across the world in 2015. Countries have OSC either because one or both of their parents have died, or because their parents have difficulties looking after them. Although some children are taken care of by other family members, there are still an estimated 2 million children living in residential care centers and being taken care of by caregivers, which means attention is needed for the well-being of OSC caregivers (Messer et al., 2015).

1.1. Background

Caregivers provide care for people who are in need. In the case of children, caregivers play crucial roles in education, meals, sleep, cleanliness, and emotions, which are all related to the children's life quality and well-being. At some residential care centers, OSC caregivers work in shifts and are not responsible for a specific child, but at other residential care centers, caregivers spend significant amounts of time with certain children. By comparing the wellbeing of children who live with family members to those who live in residential care centers, Whetten et al. (2009) found that caregivers played a large role in guaranteeing the well-being of children in residential care centers since they were like parents for those children. Better quality of care provided by the caregivers was related to more positive child wellbeing outcomes. Separately, Cederbaum et al. (2017) found that the functioning of child welfare-involved youth can be changed by strengthening the relationship between them and their caregivers.

1.2. Caregiver health

To provide better quality of care, it is important for caregivers to have strong physical and mental health. The work of caregivers can be both physically and emotionally demanding. Negative feelings such as stress may have an impact on their physical, psychological, and social health. In the current study, we focus on the caregivers of OSC. Although there may be many rewards from working with children, including meaning and connection, working with children also comes with many responsibilities. For example, children not listening to caregivers' words or getting injured can have negative impacts on caregivers' mental health, as can seeing children struggle from having experienced traumatic events or missing their parents. Therefore, it is necessary to learn more about caregivers' mental health to promote their quality of life.

According to several studies, caregivers report significantly more psychological distress, poorer well-being, higher rates of clinical psychiatric disorders, and more depressive and anxiety symptoms than non-caregivers (Venkatesh, Andrews, Parsekar, Singh, & Menon, 2016; Kumagai, 2017; Butterworth, Pymont, Rodgers, Windsor, & Anstey, 2010). The reasons for poor mental health in caregivers may be high-intensity caregiving work, repeating boring daily activities, financial and employment concerns, high burden of care, and limited social support (Venkatesh et al., 2016; Kumagai, 2017; Butterworth et al., 2010). However, some researchers have questioned the findings of worse caregiver mental and physical health, suggesting that those findings are due to selection bias in which researchers fail to include caregivers who are doing well. Consequently, more studies are required (Roth, Fredman, & Haley, 2015).

1.3. Mental health vs. mental illness

The World Health Organization (WHO) defines mental health as "a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community" (WHO, 2013). This definition frames emotional and spiritual well-being

positively. It emphasizes that mental health is the presence of positive emotions and good functioning (Gilmour, 2014). Yet, current research pays more attention to caregivers' mental illness than to their positive mental health. For example, Lv et al. (2010) examined symptoms of depression among caregivers of children in HIV-affected families in rural areas and found an association between symptoms and reduced family socioeconomic status, and also an association between depression symptoms and adult or pediatric HIV infection in the family.

Although studying mental illness in caregivers is important and attention is being paid to mental illness, positive mental health is also very important for OSC caregivers. Positive mental health is distinct from the absence of mental illness. Corey Keyes (2016, 2002, 2007) defines positive mental health as: 1) frequently experiencing positive emotions and 2) having two kinds of good functioning. The first kind is psychological functioning which includes self-acceptance, personal growth, and having a purpose or meaning in life. The second kind is social functioning which includes feelings of belonging to a group and contributing to society. Some researchers have proposed frameworks of worker well-being that include all of these components, that is, components of positive emotions and enjoyment (i.e., hedonia), and components of good psychological and social functioning as related to meaning and values (i.e., eudaimonia) (Bartels, Peterson, & Reina, 2019).

In contrast, mental illness is when an individual has negative symptoms at a level that interferes with everyday functioning. Although treatments can minimize mental illness, they cannot create a flourishing life. Nevertheless, mental illness and positive mental health are linked in some ways and in many studies are correlated (Keyes, 2002). In addition, the promotion of positive mental health may be a way to proactively prevent depression and other mental health problems (Keyes, 2007). In some studies, participants whose mental health declined from high or moderate levels of positive mental health had more of a chance to have a mental illness ten years later (Keyes, Dhingra, & Simoes, 2010).

1.4. Positive mental health

Using Keyes' definition of positive mental health, our team has published the strategies that caregivers of OSC in four countries reported helping them sustain their positive mental health over time (Proeschold-Bell et al., 2019). The six strategies they indicated were engaging in: the most meaningful caregiving activities, religious activities, and enjoyable activities, and attending to their emotions, cultivating ties with others, and seeking places of solace. However, naming these strategies required individual caregivers to have personal insight into what works for them over time and may have resulted in overlooking more specific strategies.

1.5. Measuring caregiver mental health

One way to learn about caregivers' positive mental health is to consider closely their daily activities. The remittance of depression has been causally linked to spending more of one's time engaged in activities that one considers important and enjoyable, which are also consistent with the eudaimonic/hedonic elements of worker mental health. Specifically, Behavioral Activation for the Treatment of Depression is a manualized therapy in which clients monitor their daily activities by listing what they do every hour and then rating each activity's importance and enjoyment (Lejuez, Hopko, Acierno, Daughters, & Pagoto, 2011). Clients work with a therapist to clarify their personal values, and then work to change their daily activities to increase those that they find important and enjoyable, as well as bringing them meaning. Several meta-analyses support the efficacy of Behavioral Activation for reducing depression (Cuijpers, van Straten, Andersson, & van Oppen, 2008; Ekers, Richards, & Gilbody, 2008), including a meta-analysis of 34 randomized controlled trials of the treatment (Mazzucchelli, Kane, &

Rees, 2009).

By using the same process of individuals logging daily activities with ratings on importance, enjoyment, and meaning, we sought to identify how OSC caregivers spend their time and to determine whether common OSC caregiving activities are perceived as important, enjoyable, or meaningful by OSC caregivers. Activities rated high on importance, enjoyment, and meaning should align with fewer depressive symptoms, per Behavioral Activation for the Treatment of Depression outcome studies. In addition, Keyes (2002) definition of positive mental health includes indicators of enjoyment and meaning, and so higher enjoyment and meaning ratings should indicate better positive mental health. For a fuller understanding of caregivers' days and activities that interfere with hedonia, we also collected data on how unpleasant participants considered each daily activity.

Learning more about activities that are relevant to OSC caregivers' positive mental health is helpful to act to sustain caregivers in their work, and in their having positive mental health across many years. In this exploratory study, we sought importance, enjoyment, meaning, and unpleasantness ratings on daily activities from OSC caregivers from five quite different regions of the world: Cambodia, Kenya, Ethiopia, and two distinct areas in India. We focus in this study on any similarities that may arise across caregivers and regions. With the large degree of contextual diversity for caregivers between regions and even within their respective residential care centers, any similarities found may point to universal aspects of caregiving. Differences indicate areas for future study.

2. Methods

2.1. Study design

In this study, we focused primarily on diary data (i.e., activity logs) and ratings of each half-hour activity listed. We also drew on in-depth interview data to enhance our understanding of the diary data. Specifically, we used a convergent mixed-methods study design to identify any contradictions between the quantitative activity ratings and the qualitative in-depth interview data, and to have descriptions of activities listed in the diaries (Creswell & Clark, 2011).

2.2. Recruitment

This study was conducted by researchers at Duke University and four non-governmental organizations (NGOs) around the world which worked for the welfare of children but did not necessarily provide care for OSCs directly. These NGOs are: Sahara Centre for Residential Care and Rehabilitation, Dimapur/Kohima, Action in the Community Environment (ACE) Africa-Kenya, Stand for Vulnerable Organization and Meahto Phum Ko'mah (MPK, or "Homeland"). These researchers recruited caregivers from residential care centers in: Hyderabad, India; Nagaland state, India; Bungoma County, Kenya; Addis Ababa, Ethiopia; and Battambang, Cambodia. These particular geographic areas were chosen because they were part of the Positive Outcomes for Orphans (POFO) study (Whetten et al., 2009) and the NGO leaders were also interested in the current study. These geographic areas were chosen for the POFO study in 2006–2008 because of their high numbers of OSC orphaned by AIDS, the US team's ties with the NGOs and their collaborative research partners, and the desire to include regions in both Africa and Asia with distinct cultural and historical features. Information providing some context for each geographic location is provided in Table 1.

Although there were some minor differences in recruitment and participant compensation, researchers from different countries used consistent methods. Convenience sample approaches were used in engaging residential care centers and then recruiting caregivers. The inclusion criteria were residential care centers was that they had to have at least one caregiver and serve multiple children. The inclusion criteria

for caregivers were that: (1) they were currently a caregiver for orphaned and separated children; (2) had extensive direct contact with the children (for example, were not a cook); (3) had worked for at least the last 3 years as a caregiver, and (4) should be identified as excellent in caregiving, although enacting this "excellence" criterion varied by country.

To recruit residential care centers, researchers in each country identified OSC centers in their geographic area. There were some differences in recruiting caregivers. In Ethiopia and Kenya, staff talked to the OSC center director to get suggestions on caregivers that were good with children. Staff contacted the caregivers by phone or in person and explained the study to them. In Hyderabad, staff spoke to the OSC center director who recommended senior caregivers as these long-term caregivers had a greater chance to be good caregivers. In Nagaland, there were only a few OSC centers which were small and had just one or two caregivers. Staff called the center directors, who might also be the caregivers, and scheduled an in-person visit. In Cambodia, staff sent a letter to directors and met with those who were willing to discuss the study. After gaining permission from directors to talk to the caregivers, staff described the study to the caregivers. Caregivers could decline participation.

2.3. Data collection

Data were collected in-person by trained staff from the four countries. Data included in-depth interviews, surveys, and week-long diaries. The current study focuses on findings from the diary data; we analyzed interview data to have examples to help us understand the diary data findings better, and we used survey data to describe the participant characteristics. Data were collected across two or three visits during the timeframe of November 2016-September 2017.

(1) Diary data

Participants were asked to keep a week-long diary. Staff taught participants how to fill out the diary. They were asked to record their specific activities and to include both work and personal time every half an hour, except for sleeping time. Then, participants were asked to rate how important, meaningful, enjoyable, and unpleasant each activity was. The scale for each was from 1 ("not at all") to 5 ("extremely"). Take "importance," for example: "1" means the activity was not important at all, and "5" means the activity was very important. For "important," participants were asked to think about how important this activity was in their life. For "meaningful," participants were asked to think about how much meaning the activity contributed to their life. For "enjoyable," the participants were asked to think about how enjoyable the activity was, or how much they have fun or pleasure when doing the activity. For "unpleasant," the participants were asked to think about how stressful, uncomfortable, or unpleasant the activity was.

(2) Interview data

We collected caregivers' diary entries and then conducted in-depth interviews in a private location while audio recording them. Staff were trained by the lead researchers on interview skills such as how to conduct open-ended questions, the purpose of each question, and how to deliver follow-up questions. The interviews lasted 30–120 min. Interviews were conducted in a language spoken by both the caregiver and interviewer. The interviewer transcribed the interview in the original language and then translated it into English. Of the 31 interview questions, in this study we focused on the following three sets:

1) Why did you first start caring for children? What motivated you to work with children in institutions / orphanages?
2) What tasks do you do at the institution? Which of these tasks come

Table 1
Contextual information on study geographic locations.

	Battambang, Cambodia	Addis Ababa, Ethiopia	Bungoma, Kenya	Hyderabad, India	Nagaland, India
Land size	11,702 km² (Battambang Province, n.d.).	527 km² (World Population Review. (2020, 2020).	3032 km² (County Government of Bungoma, n.d.)	217 km² (Census of India, 2011)	16,579 km² (Census of India, 2011)
Population	Just over 1 Million (Battambang Province, n.d.).	Addis: 3,435,028 (Addis Ababa: Central Statistical Agency, 2013).	Bungoma: 1,375,063 (Kenya National Bureau of Statistics, 2019).	Hyderabad: 10,860,000 (Census of India, 2012)	Nagaland:1,900,000 (Census of India, 2011)
Gross Domestic Product per capita (current US $)	Cambodia (2018): 1510.3 (World Bank, 2019)	Ethiopia (2018): 772.3 (World Bank, 2019)	Kenya (2018): 1710.5 (World Bank, 2019)	India (2018): 2010.0 (World Bank, 2019)	India (2018): 2009.10 (World Bank, 2019)
Poverty estimate	14% lives below the poverty level (Asian Development Bank, 2019).	23.5% lives below the poverty level (National Planning Commission, 2017)	Approximately 40% lives below the poverty level (United Nations Development Programme, 2018)	14% lives below the poverty level (Census of India, 2012)	34% lives below the poverty level (Census of India, 2011)
Religion estimates	Buddhist: 96.4% Christian: 1.3% Muslim: 2.1% (KnightxxArrow, 2013).	Orthodox Christian:43.5% Muslim: 33.9% Protestant:18.6% (Ethiopia Population Census Commission, 2008)	Protestant Christians: 75.1% Catholics: 22.6% Muslim: 1.9% No-religion: 0.4% (Infotrak Research and Consulting, 2017)	Hinduism: 55.5% Islam: 41% Christianity:2.5% Jain:0.5% Sikh:0.3% Buddhism:0.02% (Directorate of Economics and Statistics, 2015)	Christian: 87.9% Hindu:8.8% Muslim:2.5% Sikh, Buddhist, and Jain: < 0.08% (Census of India, 2011)
Child population estimates	There are about four million children ages 5–17 in Cambodia (Meyn, 2013)	37,336,350 children under age 15 in Ethiopia (Addis Ababa: Central Statistical Agency, 2013)	673,780 children under age 15 in Bungoma (KNBS, 2013)	Over one million children under age 14 in Hyderabad (Directorate of Economics and Statistics, 2015)	138,870 children under the age of 6 in Nagaland (Census of India, 2011)
Orphaned and separated children (OSC)-related estimates	No validated estimates exist; one website reported that in 2010, there were 553,000 orphans in the country with 11,945 children living in institutions (ConCERT Cambodia, n.d.)	Estimates are that 4.6 million OSC live in Ethiopia, primarily due to losing parents from diseases like HIV/AIDS, and from abandoning babies from unwanted pregnancy and displacement of children from divorce (UNICEF, 2006)	Ages 0–17, 14.4% are orphaned, with more than half orphaned primarily due to losing parents with HIV infection (National AIDS Control Council, 2020)	Although no estimates of orphaned children could be found for Hyderabad, in nearby Telangana, the estimate is 10,000, primarily due to loss of parents from diseases like HIV and tuberculosis (Directorate of Economics and Statistics, 2015)	No validated estimates exist
Residential care centers across the region	During the one year of this study's data collection, the estimated 11 residential care centers in Battambang reduced to 7 (4 were closed due to decreased funding and international trends of closing centers).	There are approximately 35 residential care centers in Addis Ababa. According to the Addis Ababa Administration Women, Children and Youth Affairs Bureau, during recent years, many residential care centers have been closing (personal communication, May 2019).	In 2019, there were approximately 50 residential care centers in Bungoma. During recent years, 30 residential care centers have closed.	There are approximately 100 residential care centers, each caring for between 5 and 700 children. In most cases, caregivers work full-time and live within the care center, spending the night along with the children. In recent years, many residential care centers have been closing due to funding crises and lack of financial support from the government.	There are 22 registered residential care centers in Nagaland sheltering nearly 400 children (Department of Social Welfare Nagaland, personal communication, May 22, 2019).
Number of residential care centers study participants were drawn from	3 centers, 1 of which was rural (3 rural-serving caregivers)	6 centers, all urban	9 centers, 3 of which were rural (10 rural-serving caregivers)	6 centers, 1 of which was rural (2 rural-serving caregivers)	4 centers, 1 of which was rural (2 rural-serving caregivers)
Kinds of residential care centers study participants were drawn from	Government – 1 Not government, religious – 1 (Buddhist) Not government, non-religious – 1	Government – 2 Not government, religious – 3 (Christian) Not government, non-religious – 1	Government, religious – 1 Not government, religious – 9 (7 Christian, 2 Muslim) Not government, non-religious – 0	Government –0 Not government, religious –5 (1 Christian, 1 Muslim, 3 Hindu) Not government, non-religious – 1	Government – 0 Not government, religious – 4 (Christian) Not government, non-religious – 0

most easily to you? Which tasks are hardest for you? What task do you enjoy the most and why? Do you get to do the tasks you enjoy as often as you like? Which tasks do you dislike the most and why? How often do you do these tasks? What are some of your strategies for managing to do these least favorite tasks?

3) What are some of the biggest challenges for you as a caregiver? What motivates you to continue to be a caregiver, even when there are big challenges?

(3) Survey data

All diary participants were also given a survey of demographic items to complete.

2.4. Data analysis

(1) Activity rating scores from diaries

For the half-hour diary data, we calculated the amount of time spent on each activity, including which kinds of activities, and the mean activity ratings (i.e., important, meaningful, pleasant, and unpleasant).We calculated the means for each activity within a geographic region and conducted ANOVA tests, using R version 3.6.1 (R Core Team, 2019) to identify significant differences within a geographic region (e.g., 'meaningfulness' ratings between the five activities within Cambodia). We also conducted ANOVA tests to identify significant differences between geographic regions for a particular activity and its rating (i.e., 'unpleasant' ratings for cleaning between the five geographic regions).

(2) Demographics information from survey data

The survey included several demographic questions: (1) gender: "What is your gender? Male, female, other." (2) age: "How old are you (in years)?" (3) caregiving experience: "How many years have you been caring for orphans?" (4) marital status: "Are you currently married or living with someone as if married?" Yes/no. (5) Caring for children outside of work responsibilities: "Do you have any children or grandchildren of your own (biological or adopted) that you care for regularly, for example, because they live with you?" Yes/no. (6) education experience: "What is the highest amount of education you completed? Some of grades 1–12 (or Standard 1 – Form 4), completed grade 12 or form 4, some university, graduate from university, beyond university, vocational or technical training, and other." (We collapsed categories.) (7) We asked financial stress instead of income in order to better compare across regions: "How stressful is your current financial situation for you?", with five response options from "not at all stressful" to "extremely stressful." (8) religion: "What is your religion? It's OK to indicate more than one." We included many response options, including "I don't have a religion," "not applicable," and "traditional/indigenous religion but not one of the religions above."

(3) Kinds of activities from diaries

To develop codes for the activities listed in the diaries, two study team members read through diary data examples from each geographic location. They determined a list of activities from the data, using a data-driven approach. After developing a comprehensive list, we considered ways to categorize the activities into fewer groups and assigned each group a code and wrote a definition for the code with specific examples. For example, the code of "caregivers' personal work" was defined as caregivers' work outside of the residential care centers, and "take care of my own child" was categorized as "caregivers' personal work". The codebook was used to code an initial set of diary data and updated for any additional codes or code edits during regular meetings among coders. Three team members coded all diary data with the first set of broad codes and 10% of all diary data coding was double-coded and

reviewed until the team came to consensus. The final version of the codebook contained 19 codes of activities (such as teaching children), as shown in the Results.

(4) Activity scores from the diaries

We counted the mean number of 30-min units coded per caregiver per day by geographic location to learn about their work time and daily schedule. For example, if one caregiver had 10 units of "teaching" in her one-week diary, it indicated that she spent 5 h per week on teaching.

2.5. Ethics approvals

All procedures were approved by the Duke University Arts & Sciences Institutional Review Board. We also secured the following country-level approvals: Kenya (Kenya Medical Research Institute) and Cambodia (Provincial Department of Social Affairs, Veterans, and Youth Rehabilitation). Researchers from each NGO secured in-country ethics approvals, with local approvals for Hyderabad and Nagaland through Sahara Centre for Residential Care and Rehabilitation in India, and Ethiopia through Stand for Vulnerable Organization. Participants were compensated after data collection. In Kenya, the residential care centers received a gift which included cooking oil, sugar, or soap worth ksh 2000 to share, and the caregivers received a small gift which included sugar, tea, soap, or talk time scratch cards worth ksh 1000. In Nagaland, caregivers received a small gift of stationary sets. Monetary compensation was given to individual caregivers in Cambodia ($10 USD), Ethiopia ($13 USD), and Hyderabad ($8 USD). Written informed consent was obtained from all participants.

3. Results

A total of 82 caregivers participated in diary data collection, with the following number of participants by site: 6 in Nagaland; 12 in Ethiopia; 14 in Hyderabad; 24 in Kenya; and 26 in Cambodia. Not all participants completed in-depth interviews. Specifically, 8 participants from Cambodia and 5 participants from Hyderabad did not finish in-depth interviews due to staff constraints. Of the 82 participants who provided diary data, 70 provided data for a full 7 days. In Hyderabad, we collected 3-day diary entries instead of 7-day diary entries for 10 participants because they had such low literacy that they needed the daily help of study staff to review their day and complete the diary, and the study staff were only able to go 3 days in a row.

As shown in Table 2, participants had an average of 8.6 years of caregiving work. Their mean age was 40.8 years old and the majority were female (76.8%). Some differences stood out across geographic regions. The caregivers were more educated in Nagaland, where most of the caregivers had a college degree. The caregivers were older in Cambodia, where the mean age was 48.4 years. The lowest percentages of male caregivers were in Cambodia (0%) and Ethiopia (8.3%). The greatest degree of financial stress, where participants indicated that their financial situation was very or extremely stressful, was in Nagaland (50.0%), Ethiopia (50.0%), and Kenya (45.8%). Every participant indicated having a specific religion.

3.1. Codes

With the diary entry data of every half-hour, we sought to classify all activities, even if they were infrequent activities or activities unrelated to caregiving. To be comprehensive, we created 19 codes. Five of these codes captured primary daily work tasks for caregivers: cooking for children, cleaning, caring for children (defined as "active observation or supervision of an activity such as feeding, bathing, etc."), supervising children's activities (defined as "passive observation where children are monitored with little to no interaction"); and

Table 2

Participant demographic descriptives by geographic location (n = 82).

Site	Hyderabad	Nagaland	Ethiopia	Kenya	Cambodia	Combined
Participants, n	14	6	12	24	26	82
Male, n (%)	9 (64.3)	3 (50.0)	1 (8.3)	6 (25.0)	0 (0.0)	19 (23.2)
Age in years, mean (sd)	36.4 (14.4)	33.2 (4.9)	42.2 (9.3)	36.4 (10.4)	48.4 (12.9)	40.8 (12.7)
Years being a caregiver of orphans, mean (sd)	3.9 (3.4)	6.8 (4.3)	13.5 (8.7)	6.9 (4.3)	10.8 (6.7)	8.6 (6.5)
Married/living with someone as married, n (%)	3 (21.4)	4 (66.7)	5 (41.7)	18 (75.0)	18 (69.2)	48 (58.5)
Caring for biological/adoptive children,* n (%)	4 (28.6)	3 (50.0)	6 (50.0)	23 (95.8)	16 (61.5)	52 (63.4)
Highest education attained, n (%)						
Less than high school	6 (42.9)	0 (0.0)	6 (50.0)	11 (45.8)	21 (80.8)	44 (53.7)
High school	2 (14.3)	1 (16.7)	2 (16.7)	12 (50.0)	5 (19.2)	22 (26.8)
University graduate	6 (42.9)	5 (83.3)	4 (33.3)	1 (4.2)	0 (0.0)	16 (19.5)
*Financial Stress,** n (%)*						
Extremely stressful	1 (7.1)	0 (0.0)	0 (0.0)	6 (25.0)	0 (0.0)	7 (8.5)
Very stressful	0 (0.0)	3 (50.0)	6 (50.0)	5 (20.8)	2 (7.7)	16 (19.5)
Moderately stressful	3 (21.4)	2 (33.3)	2 (16.7)	1 (4.2)	18 (69.2)	26 (31.7)
Slightly stressful	2 (14.3)	0 (0.0)	3 (25.0)	4 (16.7)	3 (11.5)	12 (14.6)
Not at all stressful	8 (57.1)	1 (16.7)	0 (0.0)	8 (33.3)	3 (11.5)	20 (24.4)
Religion, n (%)						
Hindu	11 (78.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	11 (13.4)
Muslim	1 (7.1)	0 (0.0)	0 (0.0)	7 (29.2)	0 (0.0)	8 (9.8)
Buddhist	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	26 (100.0)	26 (31.7)
Christian	2 (14.3)	6 (100.0)	12 (100.0)	17 (70.8)	0 (0.0)	37 (45.1)

* Do you have any children or grandchildren of your own (biological or adopted) that you care for regularly, for example, because they live with you?

** One Ethiopian participant did not answer the financial stress item.

teaching children (defined as "activities focusing on children's schooling such as help with homework, leading a school assembly, teaching children the word of God, or teaching a class on a certain subject such as letters, numbers, or songs"). Findings from these five codes are the focus of this paper. Examples of the other codes are religious activities such as "going to the church," self-care activities such as caregivers "taking a bath," and gardening or farming activities such as "watering the flowers."

Using the diary data, first we calculated the amount of time for different activities in these five geographic locations. Table 3 presents the number of hours worked for each of five activities by geographic location per person per day. We found that participants spent a lot of time on these five tasks, ranging from 4.4 h per participant per day in Nagaland to 9.0 h per participant per day in Ethiopia.

Two notable findings emerged from Table 3.

(1) Participants in Cambodia and Kenya spent more time on cleaning and cooking than staying with children.

Most participants in Cambodia logged time in their diaries from 5:30 a.m. to 9:30 p.m., which was 17 h in total. They reported spending an average of 7.7 h on all these five activities, which was nearly half of their working time. Combining the time for cleaning and cooking, the total time for Cambodia was 4.7 h per person per day, 4.3 h for Ethiopia, 4.1 h for Kenya, 3.0 h for Hyderabad, and 0.8 h for Nagaland. From diary entries we learned that for cooking, participants prepared breakfast, lunch and dinner every day. For cleaning, they washed clothes, washed dishes, cleaned the house, cleaned the kitchen, prepared the bedroom, and swept trash.

Combining the time for caring for, supervising, and providing

informal educational activities to children, the total time for Cambodia was 4.1 h per person per day, 4.7 h for Ethiopia, 2.1 h for Kenya, 3.9 h for Hyderabad, and 3.6 h for Nagaland. For the five tasks, participants in Cambodia and Kenya spent more time cooking and cleaning than the combination of caring for, supervising, and providing informal educational activities to children.

(2) In all five geographic locations except Nagaland, participants spent the least amount of time on educational activities.

Participants in all five geographic locations reported spending less time on activities we coded as "educational activities," which included helping with homework and providing religious education, than on other activities. Participants in Nagaland reported spending 1.1 h per person per day on educational activities; in Cambodia, 0.8 h; in Kenya, 0.4 h; in Ethiopia, 0.2 h; and in Hyderabad, only 0.1 h.

3.2. Activity scores for five activities

Participants rated each activity they reported during the day on importance, meaningfulness, enjoyment, and unpleasantness (Table 4). Omnibus ANOVA significance tests indicated statistically significant differences between geographic regions for each rating for each of the activities. Importance, meaningfulness, and enjoyment scores appeared higher among Ethiopian participants. Within geographic regions, there were also statistically significant differences for each rating (e.g., importance) between activities (e.g., cleaning). Because cleaning appeared to have higher unpleasantness ratings than the other activities, especially among participants in Hyderabad, Nagaland, and Kenya, we also ran the ANOVAs excluding cleaning. With cleaning excluded, there

Table 3

Average number of hours spent per participant per day on each of five activities in five geographic locations.

	Hyderabad n = 14	Nagaland n = 6	Ethiopia n = 12	Kenya n = 24	Cambodia n = 26
Cleaning	1.8	0.8	2.1	2.9	2.1
Cooking for children	1.2	0	2.2	1.2	2.6
Caring for children	2.7	0.3	3.6	1.3	2.2
Supervising children's activities	1.1	2.2	0.9	0.4	1.1
Educational activities	0.1	1.1	0.2	0.4	0.8
Total hours	6.9	4.4	9.0	6.2	7.7

Table 4

Meaningfulness, importance, enjoyment, and unpleasantness ratings for five caregiver activities by geographic region.

Activity and item rated	Battambang, Cambodia	Addis Ababa, Ethiopia	Hyderabad, India	Nagaland, India	Bungoma, Kenya	ANOVA between geographic regions
Teaching (obs)	347	55	23	110	130	
Meaningful, mean (SD)	4.12 (0.74)	4.73 (0.49)	3.61 (0.66)	4.27 (0.51)	4.22 (0.75)	$p < 0.001$
Important, mean (SD)	4.51 (0.60)	4.75 (0.44)	4.26 (0.45)	4.29 (0.52)	4.36 (0.66)	$p < 0.001$
Enjoyable, mean (SD)	3.36 (1.14)	4.65 (0.69)	3.48 (0.85)	3.72 (0.63)	3.49 (1.04)	$p < 0.001$
Unpleasant, mean (SD)	1.45 (0.84)	1.63 (0.60)	1.13 (0.34)	1.14 (0.35)	1.80 (0.98)	$p < 0.001$
Supervising (obs)	461	208	144	205	169	
Meaningful, mean (SD)	4.18 (0.73)	4.66 (0.57)	3.46 (0.57)	3.60 (0.85)	4.32 (0.75)	$p < 0.001$
Important, mean (SD)	4.22 (0.70)	4.76 (0.47)	4.18 (0.48)	4.12 (0.49)	4.58 (0.65)	$p < 0.001$
Enjoyable, mean (SD)	3.88 (0.98)	4.48 (0.89)	3.36 (0.59)	3.31 (0.90)	3.62 (1.34)	$p < 0.001$
Unpleasant, mean (SD)	1.34 (0.76)	2.01 (0.97)	1.33 (0.55)	1.26 (0.47)	1.59 (0.96)	$p < 0.001$
Caring for children (obs)	862	639	354	33	493	
Meaningful, mean (SD)	4.19 (0.69)	4.39 (0.79)	3.56 (0.57)	3.34 (0.87)	4.30 (0.81)	$p < 0.001$
Important, mean (SD)	4.26 (0.69)	4.57 (0.63)	4.19 (0.47)	4.03 (0.40)	4.43 (0.69)	$p < 0.001$
Enjoyable, mean (SD)	3.90 (0.91)	4.22 (0.96)	3.26 (0.71)	2.97 (0.90)	3.58 (1.17)	$p < 0.001$
Unpleasant, mean (SD)	1.41 (0.76)	1.98 (1.14)	1.29 (0.50)	1.38 (0.49)	1.79 (0.98)	$p < 0.001$
Cooking (obs)	1150	455	138	38	824	
Meaningful, mean (SD)	4.23 (0.67)	4.40 (0.75)	3.44 (0.58)	3.58 (0.65)	4.06 (0.84)	$p < 0.001$
Important, mean (SD)	4.32 (0.65)	4.54 (0.71)	4.20 (0.50)	3.92 (0.65)	4.19 (0.78)	$p < 0.001$
Enjoyable, mean (SD)	3.72 (0.93)	4.26 (0.86)	3.29 (0.63)	3.50 (0.56)	3.48 (1.09)	$p < 0.001$
Unpleasant, mean (SD)	1.40 (0.71)	2.15 (1.20)	1.22 (0.45)	1.53 (0.65)	1.85 (1.05)	$p < 0.001$
Cleaning (obs)	786	361	229	66	967	
Meaningful, mean (SD)	3.87 (0.84)	4.22 (0.83)	3.07 (0.66)	3.27 (0.99)	3.98 (0.84)	$p < 0.001$
Important, mean (SD)	3.99 (0.80)	4.41 (0.65)	3.85 (0.67)	3.79 (0.60)	4.09 (0.81)	$p < 0.001$
Enjoyable, mean (SD)	3.49 (1.03)	3.97 (1.05)	2.74 (0.72)	2.70 (0.73)	3.11 (1.10)	$p < 0.001$
Unpleasant, mean (SD)	1.34 (0.68)	2.39 (1.22)	2.11 (0.94)	1.92 (0.75)	2.11 (1.08)	$p < 0.001$
ANOVA of between activities (within region)						
Meaningful	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	
Important	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	
Enjoyable	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	
Unpleasant	$p = 0.071$	$p < 0.001$	$p < 0.001$	$p < 0.001$	$p < 0.001$	

$n = 82$ caregivers.

Obs = observations, i.e., number of diary entries.

SD = Standard Deviation.

were fewer significant differences for ratings (e.g., importance) between the remaining activities of cooking, supervising, caring for children, and educational activities.

(1) Participants rated the five activities as high in importance and meaning.

Between ratings of importance, meaningfulness, enjoyment, and unpleasantness, participants gave the highest scores to importance, followed by meaningfulness. Overall, enjoyment scores were relatively lower than importance and meaningfulness scores. In terms of importance, participants rated cleaning comparatively lower than the other activities, Participants in Cambodia and Hyderabad rated cooking with similar importance as supervising and caring for children.

(2) Informal educational activities had the highest enjoyment scores in three locations, whereas supervising children did in two locations.

Participants in Ethiopia, Hyderabad, and Nagaland gave the highest enjoyment scores to educational activities. By drawing on in-depth interview data, it was possible to learn why participants rated educational activities as so important. The first reason was that participants considered education to be very important in a child's life, because it will change their knowledge and personalities. A participant in Ethiopia said, "Since I work with children, I enjoy advising them and like seeing when they take my advice and apply it. In addition, I am happy when they get changed following my advice. Advising is what I enjoy the most." The second reason why participants rated educational activities as so important is that they considered education to be a kind of sharing and it can be a great connection between the children and the

caregivers. For example, a participant in Nagaland stated, "the most that I enjoy is giving them biblical teaching, sharing from the bible… this is one of the most interesting and enjoyable tasks." The third reason was that participants indicated that educating also gives OSC caregivers satisfaction. A participant in Hyderabad said, "teaching these students makes me to feel happy."

Participants in Cambodia and Kenya gave the highest enjoyment scores not to educational activities, but rather to supervising children, with an almost identical score for caring for children. We differentiated between more the passive supervising of children's activities and the more active caring for children, which we defined as "active observation or supervision of an activity such as feeding, bathing, etc." Comparing these scores, scores for supervising were higher than for caring for children for participants in Ethiopia, Hyderabad, and Nagaland. In the in-depth interviews, participants described difficulties in managing the behavior of children, which likely attenuated the enjoyment scores for caring for children. Over half of the participants in Ethiopia spoke about making concerted efforts to stay calm and patient in their work with children, and in Hyderabad, participants described difficulties in preventing children from sneaking out of the residential care centers, which would be frustrating indeed.

(3) Participants in every geographic region except Cambodia rated cleaning as the most unpleasant activity.

For most participants in the five geographic locations, cleaning had the highest unpleasant score, with an average of 1.98, compared with 1.60 for caring for the kids, 1.51 for cooking, 1.48 for supervising children's activities, and 1.46 for educational activities. Cleaning dishes, cleaning clothes for caregivers, and cleaning clothes for the

children were the most frequently mentioned cleaning activities. In the participants' in-depth interviews, when participants were asked about jobs they thought were hard or disliked, many participants mentioned that cleaning was the hardest work and that they didn't like it.

The reason for that could be that cleaning is time-consuming and sometimes it is very dirty to do. For example, in the interviews, one Kenyan participant mentioned that she thought washing clothes is the hardest task because of bending over for many hours. The task she said she dislikes the most is cleaning toilets because they are used by many people, which is untidy or filthy. Another participant in Kenya also mentioned cleaning clothes as her least favorite job. She said that she needs to do the job very often since they have children who wet the bed and she has to wash the sheets. The strategy that she uses to deal with her least favorite activity is reminding herself, "I know that all tasks are important and that one has to do them to fulfil our purpose of serving God."

However, participants in Cambodia didn't rate cleaning compared to the other activities as unpleasant as much as participants in other geographic locations did. The unpleasant score for cleaning among Cambodian participants was only 1.34, which was the lowest mean unpleasant score for cleaning among the five geographic locations. Also, among the five activities in Cambodia, cleaning received the lowest unpleasant score (tied with supervising). Cambodian participants reported spending the most time on cleaning compared to participants in the other geographic locations. One reason for lower unpleasantness scores for cleaning could be because sometimes participants consider cleaning to be working with children. One participant in Cambodia reported loving cleaning most because "cleaning the whole institution because I can see all my children here. When my children are not with me, I always worry about them, for example, I always worry when it rains because I don't know if they are in class or not. Even if the job is a bit hard, I am happy because I can see them all here [while cleaning]." Another reason could be the different attitude toward daily work among some Cambodian participants. For example, when asked in the interview to rate their least favorite work, one Cambodian participant answered that she could not rate it because all different kinds of work are all the same to her. She reported wanting to enjoy every kind of work if she needs to finish every task.

4. Discussion

4.1. Discussion of the results

This study sought to identify how caregivers spend their days and how they consider the importance, meaningfulness, enjoyment, and unpleasantness of their daily activities. The well-studied therapeutic approach of Behavioral Activation for the Treatment of Depression has repeatedly found that swapping out one's daily activities for those one considers to be meaningful and enjoyable leads to fewer depression symptoms with improvements maintained over time (Lejuez et al., 2011). Thus, understanding how caregivers value and enjoy their activities with OSC provides insight into activities that support or challenge their mental health.

A key finding of this study is that caregivers sometimes spend even more time on cooking and cleaning than staying with children. For example, in Cambodia, an average of 4.7 h/day was spent on cooking and cleaning. In contrast, for most participants, spending time with children was enjoyable. For example, participants reported relatively high enjoyment of tasks that we coded as "educational activities," consisting of a wide range of helping with homework, leading school assemblies, teaching from the Bible or Quran, or teaching children letters, numbers, or songs. Yet, the reality revealed by the diary data was that the participants didn't have much time for these educational activities. This finding was surprising; it is possible that many people think caregivers' main responsibilities should be taking care of children and teaching them some basic knowledge and skills, yet we found that

they do not spend most of their days with children. At the same time, many of the caregivers had low education levels and were unlikely to be in a position to teach in a formal sense.

While rated as important, caring for children was rated as less enjoyable than teaching and supervising, even though the motivation for their job for most caregivers was that they love children and want to take care of orphaned and separated children. According to Darkwah, Daniel, and Asumeng (2016), the main motivations for caregivers include: (1) their belief system that caring for and loving children is "the work of God," (2) personal benefits for childless people because this is a chance for them to raise a child, and (3) economic benefits. Overall, the wish to care for and love children is the most important motivation for them. We differentiated between the more passive supervising of children's activities and the more active caring for children, which we defined as "active observation or supervision of an activity such as feeding, bathing, etc." As can be the case with parenting, caring for children brings with it opportunities for satisfaction, but also requires caring for children when they misbehave, which participants in the interviews reported made them feel disappointed and sad. Other caregiving challenges are that children may hurt themselves or make themselves sick when they fail to follow caregivers' rules, and this may make caregivers very worried. According to the participants' interview data, taking care of sick children was one of the greatest difficulties for caregivers since they would worry about the children's condition. Other studies have also discovered similar results. Berheide, Berk, and Berk (1976) focused on the nature and consequences of household work. They found that child care is the activity that evokes the most diverse feelings, with housewives describing it as "enjoyable," "frustrating," "fulfilling," and "physically tiring." When people care for children, it means being responsible for children who don't know how to protect themselves and sometimes get sick or injured, bringing negative emotions to caregivers.

Cleaning is another potential threat to caregivers' positive mental health; the enjoyment score for cleaning was the lowest and the unpleasant score was the highest among all activities. This result is consistent with work by Mutrie and Hannah (2007), in which greater amounts of housework related to greater likelihood of depression, even though most physical activities have a positive relationship with mental health. Other research has also indicated that housewives feel dissatisfied with heavy loads of housework (Krause, 1983). Fragmented and repetitive work may be the reason for such dissatisfaction (Berheide et al., 1976; Oakley, 1974). Nevertheless, the situation in Cambodia was different from these research findings and also from participants in this study's other geographic regions. In Cambodia, participants did not rate educational activities as more enjoyable than cleaning, and rated all other activities except supervising as more unpleasant than cleaning. From interview data, it seemed that caregivers in Cambodia accepted cleaning as part of the full picture of a caregiving job that they considered important. At the same time, cleaning can be backbreaking work and some residential care centers likely do not have enough staff to ease cleaning burdens. Since most caregivers who didn't like cleaning mentioned that cleaning is dirty and a time-consuming burden, it seems important to share the cleaning workload and to ensure that caregivers have enough personal rest time, even though this may be a challenge for low-resourced residential care centers.

From the perspective of occupational mental health, there is a growing literature on frameworks to consider employee well-being (De Simone, 2014; Litchfield, Cooper, Hancock, & Watt, 2016; Page & Vella-Brodrick, 2008). We like the framework proposed by Bartels et al. (2019) that considers both the maximization of pleasure and prevention of pain in the workplace, also known as a hedonic perspective, and the eudaimonic perspective of growing as a person, having purpose, and feeling connected to others (indicators of good psychological functioning) within the workplace. The current study adds to the literature through its focus on the well-being of caregivers. We found variability in ratings of the importance, meaningfulness, enjoyment, and

unpleasantness of the daily activities of caregivers. The importance and meaningfulness scores reflect the eudaimonia dimension of employee well-being, and the enjoyment and unpleasantness scores reflect the hedonia dimension of employee well-being. In considering the best ways to sustain employees in a specific occupation, understanding aspects of both eudaimonia and hedonia as related to the occupation provides a fuller picture from which to make recommendations. In the current study, we found educational activities, supervising, and caring for children to have the highest scores in eudaimonia dimensions and educational activities and supervising to be rated most highly in hedonia dimensions. The fact that these daily activities were time-consuming indicates that they likely affect caregivers' daily work lives. A consideration for residential care center directors would be to incorporate all of these activities for caregivers. Future studies may add to the current study to inform caregiver mental health frameworks.

4.2. Limitations

By virtue of collecting diary data in five geographic locations, we were able to learn how caregivers spend their days with detail and compare the amount of time spent between geographic regions. We also compared scores on how caregivers rated these activities; because there was substantial diversity between caregivers between geographic locations, it is hard to be sure that rating differences between geographic regions weren't actually due to differences in religion, education, or financial stress. Therefore, similarities in ratings from this study that were consistent across multiple geographic regions, such as enjoying educational activities and not cleaning, are more compelling than the ratings findings that emerged for just one region, such as cleaning not being more unpleasant in Cambodia. In other limitations, not all participants had strong literacy, so we cannot be sure that every participant gave accurate answers. Because participants in Hyderabad had research staff help them fill out their diary entries and at all other sites the diary entries were self-administered, it is possible that diary data from Hyderabad exhibit mode effects. Specifically, participants may have been more likely in Hyderabad to make themselves look better to the interviewer or give answers which the interviewer expects. Also, some participants in Hyderabad only completed three instead of seven days of diary entries, which may bring some biases. In addition, we didn't have an equal number of participants by geographic location; there were fewer participants in Hyderabad and Nagaland. Future research may include more caregivers, more geographic regions, and more questions about work breaks and the quality of socialization at work.

4.3. Recommendations and implications

Our findings suggest that most caregivers work many hours every day, especially cooking and cleaning, and cleaning may have a negative impact on caregivers' mental health. Although it might be ideal to decrease the cooking and cleaning workload, that may not be feasible. Alternatively, it may benefit caregivers to hold interesting activities to connect them with children. Based on the enjoyment scores, allowing time for advising, supervising, and various kinds of informal education may benefit both caregivers and children.

In addition, we found that caregiving itself is challenging, especially around misbehavior. Quinn, Briggs, Miller, and Orellana (2014) found that caregivers' physical and mental health also influence children's mental health and emotions. Therefore, providing behavior management strategies for caregivers, including around difficult emotions, may benefit both caregivers and children. For children who are OSC, caregiver training that is trauma-informed and based in work on trauma-informed care may be particularly important (Peterson, 2017).

5. Conclusion

In sum, findings from this study indicate that caregivers work long hours every day, but also consider five of their common and time-consuming activities to be important and meaningful. Too much time spent cleaning may pose a threat to mental health, and more time spent on high-enjoyment activities such as informal educational activities may benefit caregiver mental health. OSC caregivers provide important work for the world's most vulnerable children; we hope this detailed look at their days provides some insight to help sustain them in their work.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.childyouth.2020.105103.

References

Addis Ababa: Central Statistical Agency (2013, July). Population projections for Ethiopia, 2007–2037.

Asian Development Bank (2019). Poverty Data: Cambodia. https://www.adb.org/countries/cambodia/poverty.

Bartels, A. L., Peterson, S. J., & Reina, C. S. (2019). Understanding well-being at work: Development and validation of the eudaimonic workplace well-being scale. *PLoS ONE, 14*(4), e0215957.

Battambang Province. (n.d.). In Wikipedia. https://en.wikipedia.org/wiki/Battambang_Province.

Berheide, C. W., Berk, S. F., & Berk, R. A. (1976). Household work in the suburbs: The job and its participants. *The Pacific Sociological Review, 19*(4), 491–518. https://doi.org/10.2307/1388834.

Butterworth, P., Pymont, C., Rodgers, B., Windsor, T. D., & Anstey, K. J. (2010). Factors that explain the poorer mental health of caregivers: Results from a community survey of older Australians. *Australian & New Zealand Journal of Psychiatry, 44*(7), 616–624. https://doi.org/10.3109/00048671003620202.

Cederbaum, J. A., He, A. S., Fulginiti, A., Sullivan, K., Krauss, M. D., Amutah, N., & Pohle, C. (2017). Caregiver qualities, family closeness, and the well-being of adolescents engaged in the child welfare system. *Children and Youth Services Review, 73*, 113–120. https://doi.org/10.1016/j.childyouth.2016.12.007.

Census of India 2011: Andhra Pradesh (2012). District Census Handbook – Hyderabad, Village and Town Directory, Series-29, Part XII-A. http://www.censusindia.gov.in.

Census of India 2011: Nagaland (2011). District Census Handbook – Nagaland, Village and Town Directory. http://www.censusindia.gov.in/2011census/dchb/DCHB.html.

ConCERT Cambodia (n.d.). Orphanages. http://concertcambodia.org/useful-information/orphanages/.

County Government of Bungoma (n.d.) First Bungoma County integrated development plan: 2013- 2017. https://cog.go.ke/downloads/category/82-county-integrated-development-plans-2013-2017.

Creswell, J. W., & Plano, Clark V. L. (2011). *Designing and conducting mixed methods research* (2nd ed). Thousand Oaks, CA: Sage.

Cuijpers, P., van Straten, A., Andersson, G., & van Oppen, P. (2008). Psychotherapy for depression in adults: A meta-analysis of comparative outcome studies. *Journal of Consulting and Clinical Psychology, 76*(6), 909–922.

Darkwah, E., Daniel, M., & Asumeng, M. (2016). Caregiver perceptions of children in their care and motivations for the care work in children's homes in Ghana: Children of God or children of white men? *Children and Youth Services Review, 66*, 161–169. https://doi.org/10.1016/j.childyouth.2016.05.007.

De Simone, S. (2014). Conceptualizing wellbeing in the workplace. *International Journal of Business and Social Science, 5*(12), 118–122.

Directorate of Economics and Statistics, Government of Telengana, Hyderabad (2015). Statistical Year Book 2015. http://www.indiaenvironmentportal.org.in/files/file/Statistical%20Year%20Book%202015.pdf.

Ekers, D., Richards, D., & Gilbody, S. (2008). A meta-analysis of randomized trials of behavioural treatment of depression. *Psychological Medicine, 38*(5), 611–623.

Ethiopia Population Census Commission (2008). Summary and Statistical Report of the 2007 Population and Housing Census: Population Size by Age and Sex. https://www.ethiopianreview.com/pdf/001/Cen2007_firstdraft(1).pdf.

Gilmour, H. (2014). Positive mental health and mental illness. *Health Reports, 25*(9), 3–9.

Infotrak Research and Consulting (2017). Bungoma County popularity survey. http://infotrakresearch.com/wp-content/uploads/2017/07/BUNGOMA-COUNTYTRAK-_JULY-27-2017_MEDIA-RELEASE.pdf.

Kenya National Bureau of Statistics (2019, May 2). Economic survey 2019. https://www.theelephant.info/documents/kenya-national-bureau-of-statistics-economic-survey-2019/.

Kenya National Bureau of Statistics. (2013). Exploring Kenya's inequality: pulling apart or pooling together? http://inequalities.sidint.net/kenya/wp-content/uploads/sites/3/2013/10/Preliminary%20pages.pdf.

Keyes, C. L. M. (2016). Why flourishing? In D. W. Harward (Ed.). *Well-being and higher education: a strategy for change and the realization of education's greater purposes.* Washington, DC: Bringing Theory to Practice.

Keyes, C. L. M. (2002). The mental health continuum: From languishing to flourishing in life. *Journal of Health and Social Behavior, 43*(2), 207–222.

Keyes, C. L. M. (2007). Promoting and protecting mental health as flourishing: A complementary strategy for improving national mental health. *American Psychologist, 62*(2), 95–108.

Keyes, C. L. M., Dhingra, S. S., & Simoes, E. J. (2010). Change in level of positive mental health as a predictor of future risk of mental illness. *American Journal of Public Health, 100*(12), 2366–2371.

KnightxxArrow (2013, June 25). File: Religions of Cambodia. In Wikimedia. https://commons.wikimedia.org/wiki/File:Religions_of_Cambodia.png.

Krause, N. (1983). Conflicting sex-role expectations, housework dissatisfaction, and depressive symptoms among full-time housewives. *Sex Roles, 9*(11), 1115–1125. https://doi.org/10.1007/BF00289920.

Kumagai, N. (2017). Distinct impacts of high intensity caregiving on caregivers' mental health and continuation of caregiving. *Health Economics Review; Heidelberg, 7*(1), 1–14. https://doi.org/10.1186/s13561-017-0151-9.

Lejuez, C. W., Hopko, D. R., Acierno, R., Daughters, S. B., & Pagoto, S. L. (2011). Ten year revision of the Brief Behavioral Activation Treatment for Depression: Revised treatment manual. *Behavior Modification, 35*(2), 111–161.

Litchfield, P., Cooper, C., Hancock, C., & Watt, P. (2016). Work and wellbeing in the 21st century. *International Journal of Environmental Research and Public Health, 13*, 1065. https://doi.org/10.3390/ijerph13111065.

Lv, Y., Zhao, Q., Li, X., Stanton, B., Fang, X., Lin, X., ... Zhao, J. (2010). Depression symptoms among caregivers of children in HIV affected families in rural China. *AIDS Care, 22*(6), 669–676. https://doi.org/10.1080/09540120903334633.

Mazzucchelli, T., Kane, R., & Rees, C. (2009). Behavioral activation treatments for depression in adults: A meta-analysis and review. *Centre for Reviews and Dissemination (UK)*.

Messer, L. C., Whetten, K., Ostermann, J., Pence, B. W., Ariely, S., O'Donnell, K., ... Madan, I. (2015). Three-year change in the wellbeing of orphaned and abandoned children in institutional and family-based care settings in five low and middle income countries. *International Journal of Epidemiology, 44*(suppl_1), i216–i217. https://doi.org/10.1093/ije/dyv096.366.

Meyn, C. (2013, November 29). Report says more than 10 percent of children are 'laborers.' The Cambodia Daily. https://www.cambodiadaily.com/news/report-says-more-than-10-percent-of-children-are-laborers-48198/.

Mutrie, N., & Hannah, M. K. (2007). The importance of both setting and intensity of physical activity in relation to non-clinical anxiety and depression. *International Journal of Health Promotion and Education, 45*(1), 24–32. https://doi.org/10.1080/14635240.2007.10708094.

National AIDS Control Council (2020). Kenya AIDS Indicator Survey 2012. https://nacc.or.ke/kais-2012-final-report/.

National Planning Commission (2017, June). Ethiopia 2017 Voluntary National Review on SDGs. https://www.et.undp.org/content/dam/ethiopia/docs/2017/The%202017%20VNRs%20on%20SDGs_Ethiopia%20(Eng)%20Web%20version%20.pdf.

Oakley, A. (1974). *The sociology of housework.* New York, NY, US: Pantheon Books.

Page, K. M., & Vella-Brodrick, D. A. (2008). The 'what', 'why' and 'how' of employee well-being: A new model. *Social Indicators Research, 90*, 441–458.

Peterson, S. (2017, November 29). All NCTSN Resources [Text]. Retrieved July 17, 2019, from The National Child Traumatic Stress Network website: https://www.nctsn.org/resources/all-nctsn-resources.

Proeschold-Bell, R. J., Molokwu, N. J., Keyes, C. L. M., Sohail, M. M., Eagle, D. E., Parnell, H. E., ... Whetten, K. (2019). Caring and thriving: An international qualitative study of caregivers of orphaned and vulnerable children and strategies to sustain positive mental health. *Children and Youth Services Review, 98*, 143–153. https://doi.org/10.1016/j.childyouth.2018.12.024.

Quinn, A., Briggs, H. E., Miller, K. M., & Orellana, E. R. (2014). Social and familial determinants of health: Mediating effects of caregiver mental and physical health on children's mental health. *Children and Youth Services Review, 36*, 163–169. https://doi.org/10.1016/j.childyouth.2013.11.016.

R Core Team (2019). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.

Roth, D. L., Fredman, L., & Haley, W. E. (2015). Informal caregiving and its impact on health: A reappraisal from population-based studies. *The Gerontologist, 55*(2), 309–319. https://doi.org/10.1093/geront/gnu177.

UNICEF (2006, January 24). Ethiopia: Steady increase in street children orphaned by AIDS https://www.unicef.org/protection/ethiopia_30783.html.

UNICEF, Orphans. Retrieved January 4 2018, from: https://www.unicef.org/media/media_45279.html.

United Nations Development Programme, Kenya. (2018). UNDP Kenya 2017 Annual Report. https://www.undp.org/content/dam/kenya/docs/UNDP%20Reports/UNDPKE%202017%20Annual%20Report_Interactive.pdf.

Venkatesh, B. T., Andrews, T., Parsekar, S. S., Singh, M. M., & Menon, N. (2016). Stigma and mental health- caregivers' perspective: A qualitative analysis. *Clinical Epidemiology and Global Health, 4*(1), 23–27. https://doi.org/10.1016/j.cegh.2015.06.003.

Whetten, K., Ostermann, J., Whetten, R. A., Pence, B. W., O'Donnell, K., Messer, L. C., Thielman, N. M., & The Positive Outcomes for Orphans (POFO) Research Team. (2009). A comparison of the wellbeing of orphans and abandoned children ages 6-12 in institutional and community-based care settings in 5 less wealthy nations. PLoS ONE 4(12), e8169. doi: 10.1371/journal.pone.0008169.

World Bank (2019). GDP per capita: All countries and economies. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD.

World Population Review (2020, February 17). Addis Ababa Population 2020. http://worldpopulationreview.com/world-cities/addis-ababa-population/.

World Health Organization (2013). Mental health action plan: 2013-2020. https://www.who.int/mental_health/action_plan_2013/bw_version.pdf.