Lessons from a Quality Improvement Study on the Technology and Service Needs of a Closed Control Accommodation Center (CCAC) in Northern Greece

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Abstract: In May 2023, a partnership between the NGO SolidarityNow and an interdisciplinary team from the University of Texas at Austin pursued a quality improvement study at a Closed Control Accommodation Center (CCAC) in Northern Greece. The study investigated the quality of the current services meeting the connectivity, community, and transportation needs of the residents. Following the analysis of responses to a paper-based survey distributed to the resident population, focus group discussions with residents further explored their technology and service needs through the collection of qualitative data. This paper outlines how insights gleaned from the qualitative portion of the study changed the authors' understanding of the needs of the community from the initial analysis of the survey. This paper focuses on the analysis of three identified needs: access to the public bus system, reliable Wi-Fi connection, and language interpreters. The qualitative aspect of the study revealed essential aspects of each of these needs that were not identified by the survey. Thus, the analysis of this quality improvement study supports expanding needs analyses to include qualitative as well as quantitative data collection in order to more successfully identify the needs of displaced populations and innovate accordingly.

Keywords: Technology Needs; Qualitative Research; Closed Control Accommodation Center; Connectivity; Quality Improvement Study; Displaced Population.

1 Introduction

UNHCR reports that 22 percent of the world's refugees, an estimated 6.6 million people, reside in camps (UNHCR, 2021). Although camps often present an opportunity for asylum-seekers to find resources and protection, the inherent nature of camps can also pose logistical obstacles to ensuring quality of life for the residents. The increasingly rapid development of new technologies has enabled the mitigation of some of the difficulties associated with life in refugee camps, but significant barriers still remain.

In its 2020 Connectivity for Refugees: Displaced and Disconnected report, UNHCR discussed the benefits of connectivity amongst displaced populations. Included in these benefits were access to education and livelihood opportunities, protection, increased social capital, and the promotion of mental health (UNHCR, 2020). The ability of displaced persons to connect with people, resources, and communities is often dependent on the technology available to them, which can be limited by legal, financial, and logistical constraints.

At the end of 2022, the Ministry of Migration and Asylum in Greece announced that the ESTIA program would be closing. This program, the latest edition of which launched in October 2021, provided funding for a number of asylum-seekers to reside with their families in 1,683 apartments in 19 Greek cities while waiting for the decision on their legal status as refugees (European Commission, 2022). With the end of the ESTIA prohigram, new challenges arose to provide asylum-seekers now living in accommodation centers with the level of connectivity that had been available to them when they were integrated into cities.

In order to meet the diverse technology needs of the displaced populations they host, accommodation centers consistently confront complex logistical issues, often through site-specific innovation. The aim of the quality improvement study analyzed in this paper was to identify opportunities to more effectively meet the technology and service needs of the resident population of a Closed Control Accommodation Center (CCAC) in Northern Greece. This study took place as part of a University of Texas at Austin (UT Austin) summer class abroad on the technology needs of refugee communities, and it is part of a larger partnership on refugee camp logistics between the UT Austin humanitarian engineering department and Dr. Maria Drakaki at International Hellenic University.

2 Methods

2.1 Survey

The quality improvement study began with a survey that was implemented on paper between May 4 and May 28, 2023 at the CCAC by the NGO SolidarityNow. Residents of the CCAC were given the survey to take individually, and responses were physically collected by SolidarityNow and digitized for analysis. There were a total of 39 responses to the survey.

The survey consisted of six sections. The first section asked about demographic information of the respondent. The second section asked about the type of cell phone used by the respondent and details about how the respondent used SIM cards. The third section asked the respondent to list the five resources they considered to be most important in the CCAC. The fourth section asked the respondent to rate the importance of various resources in the CCAC on a Likert scale. This section of the survey is shown in Figure 1. The fifth and sixth sections of the survey asked respondents to assess the quality/accessibility of resources in the CCAC and their frequency of resource use, respectively.

RATING THE IMPORTANCE OF RESOURCES

Circle the number that best describes the importance of a resource to you	Not Important at All	A Little Bit Important	Moderately Important	Quite a Bit Important	Extremely Important
Connectivity These are resources that help you access the internet and phones.					
1. Wi-Fi/Internet	1	2	3	4	5
2. Cell Phone with SIM Card	1	2	3	4	5
Community These are resources that help you stay involved with others and your culture.					
3. Space to Relax	1	2	3	4	5
4. Space to have Recreational Activities	1	2	3	4	5
5. Space to Pray	1	2	3	4	5
Location and Transportation Resources related to the location of the camp and transportation from the camp.					
6. Public Bus Service	1	2	3	4	5
7. Proximity to Local Stores	1	2	3	4	5
8. Proximity to Local Employment	1	2	3	4	5

Figure 1. A screen capture of the fourth section of the survey, which asked residents to rate the importance of various resources in the CCAC on a Likert scale.

2.2 Focus Group Discussions

The results of the survey were analyzed, and bar graphs were created to reflect the distribution of responses collected. Findings from the survey were used to craft a set of questions for the focus groups held with residents on May 18, 2023. The list of questions used in the focus group discussions can be found in Figure 2. Focus group participants were sorted into four groups based on language. The focus groups were conducted in Arabic, English, Farsi, and French, with the use of an interpreter for non-English groups. Each group had between 5 and 15 participants, and the discussions were one hour in duration.

1. When you first arrived in camp, what was your biggest need?
2. How have your needs changed since then?
3. Tell us about the most important things you use WIFI for.
4. Tell us about what you need transportation for.
    How has transportation affected your life in camp?
5. What would you use an interpreter for?
6. What do you do for relaxation?
7. What is something you wanted us to ask you about that we didn't?

Figure 2. A screen capture of the questions asked during the focus group discussions.

3 Results and Discussion

3.1 Survey Results

The graphs included in this section display notable findings regarding the technology and service needs of the residents in the CCAC from the paper-based survey and the focus group discussions. In Figure 3 and Figure 4, the darker bars represent male respondents, and the lighter bars on top represent female respondents.

As shown in Figure 3, the survey data shows that the public bus was reported to be an "extremely important" resource by over half of respondents. The emphasis on the importance of the bus shown in the survey data was a point that informed the fourth question (shown in Figure 2) used in the focus group discussions.
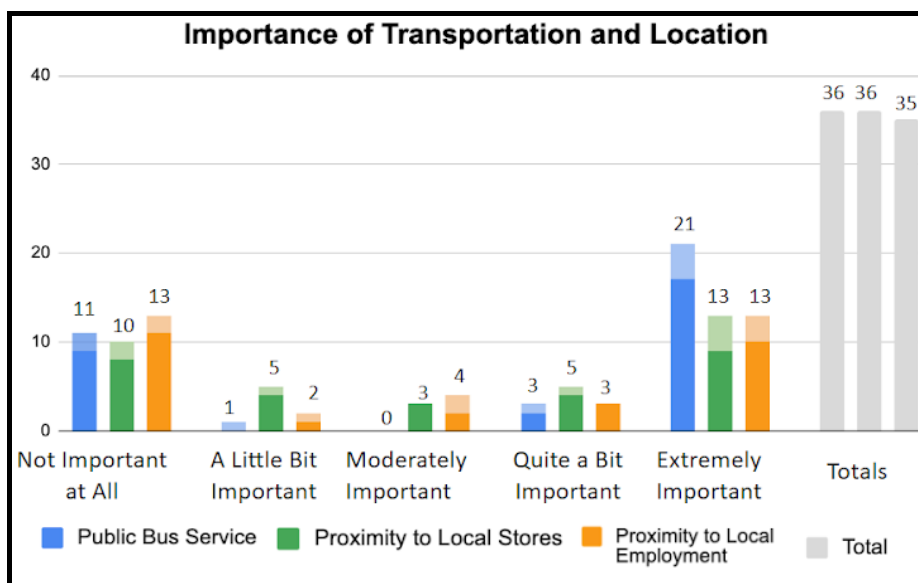

Figure 3. A bar graph representing the distribution of responses ranking the importance of the public bus service, proximity to local stores, and proximity to local employment on a Likert scale.

Another conclusion drawn from the survey data is shown in Figure 4, where it is reported that less than one-third of respondents reported that the Wi-Fi in the camp was of "good" or "high" quality/accessibility. It is also important to note that the same number of respondents reported that the Wi-Fi in the camp was of "limited" quality/accessibility or that it was not accessible at all. The third question used in the focus group discussions (shown in Figure 2) aimed to investigate the diversity in responses to this survey question.
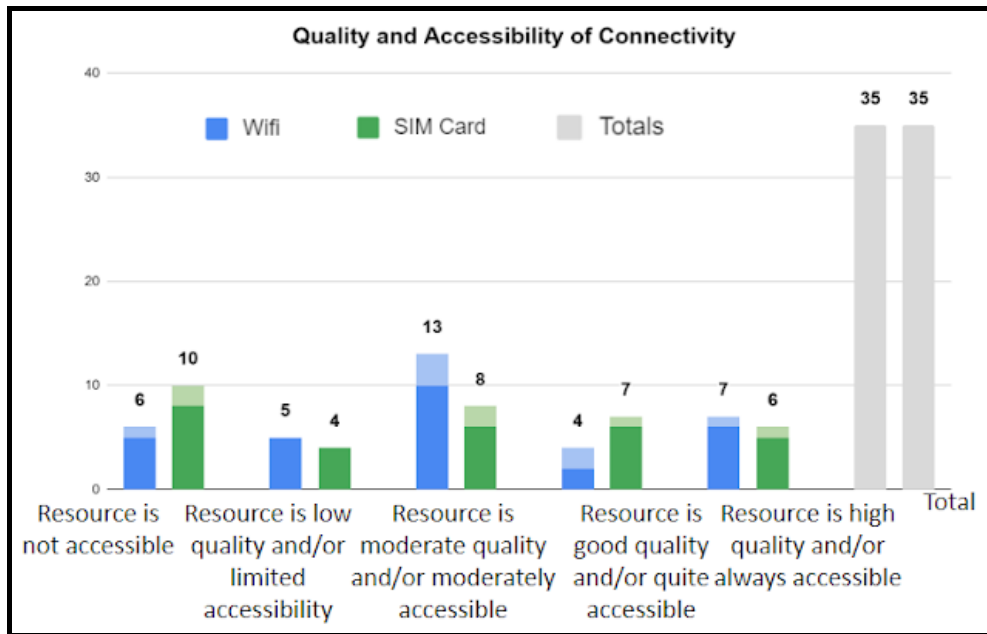

Figure 4. A bar graph representing the distribution of responses ranking the quality and accessibility of Wi-Fi and SIM Cards.

Figure 5 underscores the importance of transportation for the residents of the CCAC, as the most frequent response to the question asking participants to list their top 5 most important resources was "transportation." The second most frequent response to this question, as shown in Figure 5, was "food," and the third most frequent response to this question was "interpreters." The fifth question used in the focus group discussions (shown in Figure 2) was designed to allow residents to elaborate on their need for interpreters in the CCAC.
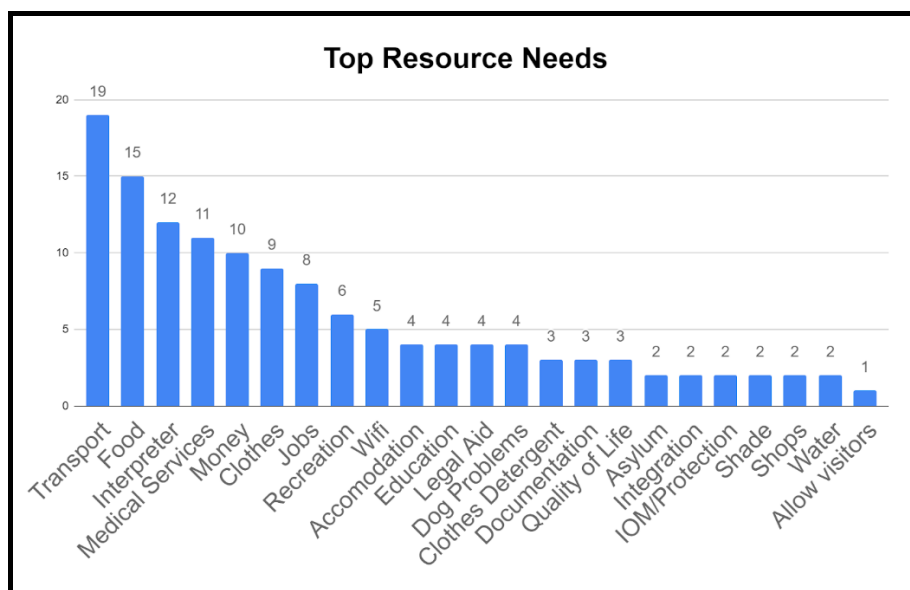

Figure 5. A bar graph representing the distribution of responses to the survey question asking respondents to list the 5 resources they considered most important in the CCAC.

3.2 Focus Group Discussion Results

In addition to the quantitative data gathered from the paper-based survey, there were a number of quotations from the focus group discussions that expanded the authors' understanding of the three needs analyzed in this paper: access to the public bus system, reliable Wi-Fi connection, and language interpreters. The chart below (Figure 3) displays relevant quotations from the residents regarding these needs.

Need	Quotation
Transportation	"The government is trying to close the camps that are close to cities and take the refugees far away from the cities. And, there were the buses, and they cut the buses. I don't know. Maybe they're planning not for refugees to be able to come to the city. And, being in the camp is kind of like being in the prison. While you have the freedom of movement, you don't have the ability to move. You don't have the transportation and maybe you cannot, you will not be able to afford it. To pay the transportation. And, as my friend here said, it is, you know, one of the most important things… a bird without wings."
	"It's very difficult to stay in the camp more than one or two weeks, and even if you go and stay inside the camp for more than two weeks, you are going to be depressed."
	"You don't have to pay for the bus when you go to the hospital right? No, no. Only if you want to go just for fun or for food or for anything. You have to pay."
	"The people that are staying inside the camp right now… they have depression, and they want to get out. They need to go to the town, for example Thessaloniki. So they can see more things, new people, new buildings. For example, there are no trees inside the camp"
Wi-Fi	"Wi-Fi connection is not as strong in all the places in the camp. There are places that it's strong enough. And others it's not. So you have to change, move around. To get the better connection"
	"Inside the container, the Wi-Fi malfunctions all the time. So they are getting out of the container so they can have a better signal with the Wi-Fi."
Interpreters	"Let's say we have great Wi-Fi and a great translator app. Does the person that we're discussing with, an employee or whoever, accept to use an app to translate and communicate? If something is not very understandable, does he have the patience to go through all this procedure?"
	"Example. The container is on fire. Do I have the time to write it? Like, explain what's going on? My wife, my children will all be burned if I have to use technology to translate and communicate what's going on."

Figure 6. A table displaying quotations from focus group participants regarding the need for the public bus system, Wi-Fi, and interpreters.

The survey found that the public bus system was reported to be an "extremely important" resource by over half of respondents. The authors initially defined the need being met by the public bus system as "access to off-site resources such as medical services, diverse nutrition options, language lessons, and jobs." However, the focus group discussions revealed that the need being met by the public bus system was not only access to off-site resources but also the ability to experience different activities, meet different people, and see different places. For the residents, access to the public bus system meant they were able to regain control over a part of their lives. The public bus contributed largely to improving the mental health of residents, and any transportation solution that solely connected residents to off-site resources would have failed to meet another very important need of the community: freedom of movement.

The survey also found that less than one-third of respondents reported that the Wi-Fi in the camp was of "good" or "high" quality/accessibility. From this data, it would be reasonable to consider investing in Wi-Fi with a stronger signal. However, the focus group discussions revealed that residents were mostly having issues with the Wi-Fi not connecting well to devices being used inside the living containers. Further research might be needed to confirm that the material of the living containers is blocking the Wi-Fi signal. If this theory is confirmed, however, a more appropriate solution might be to create an outdoor space for Wi-Fi use.

Finally, the survey found that "interpreters" was the third most frequently identified need by residents. The authors had initially defined this need to be a way to understand and communicate in written and spoken Greek or English without fluency in either language. However, residents in the focus groups discussed how one

important aspect of interpreters is that they act as advocates on their behalf, answering follow-up questions and communicating urgency and meaning more effectively than any app or website. The need was actually an advocate that could understand and communicate their needs. If the authors had suggested using a translator app to meet this need to overcome the language barrier, the real need for an advocate would have gone unmet.

4 Conclusion

The initial aim of the quality improvement study that was undertaken at the CCAC in Northern Greece by SolidarityNow and the team from the University of Texas at Austin was to identify areas of improvement in the unmet technology and service needs of the resident population, particularly surrounding connectivity. However, comparison of the authors' understanding of the residents' needs after analysis of the survey to their understanding after analysis of the focus group discussion transcripts provides a number of relevant examples of the importance of qualitative data collection in order to understand the latent technology needs of the CCAC residents. In the case of the three examples of technology and service needs discussed in this paper, there was significant value added by the qualitative portion of the study. The focus group discussions revealed crucial information about why the public bus system and interpreters were important resources to the residents and clarified the existing issue with the W-Fi. Specifically, the qualitative portion of this study changed the authors' perspectives on the importance of the methods by which the residents' needs are met. The authors' engineering backgrounds had not prepared them to assess the social and mental health needs that were met by some solutions and ignored by others. Without the information provided in the focus group discussions, the needs of the residents would not have been identified to their full extent, and attempts to engineer solutions would not have effectively mitigated remaining barriers to resident connectivity.

Acknowledgements

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