

Detailed protocol and pre-analysis plan.
Psychological support for Ukrainian refugees in
Germany

Alexandra Avdeenko*

Luc Behaghel†

Esther Duflo‡

Andreas Ette §

Yagan Hazard ¶

Alexander Moldavski ||

Artur Obminski**

Nicolas Rüscht††

C. Katharina Spiess ‡‡

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*World Bank, aavdeenko@worldbank.org

†Paris School of Economics, INRAE, luc.behaghel@psemail.eu

‡MIT, eduflo@mit.edu

§BIB, andreas.ette@bib.bund.de

¶PSE, yagan.hazard@ens.psl.eu

||ZI Mannheim, Alexander.Moldavski@zi-mannheim.de

**PSE, artur.obminski@psemail.eu

††Ulm University, nicolas.ruesch@uni-ulm.de

‡‡BIB, katharina.spiess@bib.bund.de

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1 Overview

1.1 Context and motivation

The uptake of mental health services by Ukrainian refugees is sub-optimally (and worryingly) low, given prevalence estimates of mental disorders in conflict settings (Charlson *et al.*, 2019). Among Ukrainian refugees in Germany, this seems to be especially due to a lack of demand for mental health (MH) care. Quality MH care is available in Ukrainian languages, covered by German health insurance. This is in stark contrast with previous crises (in particular, the 2015 migrant crisis where the supply of care in Arabic was wanting).¹

Survey evidence suggests that stigma is a first-order barrier to the uptake of the services by Ukrainian refugees. Stigma has been studied in the Ukrainian population just before the war (Quirke *et al.*, 2021): results showed a lack of awareness and mild to high stigma, which has been related to Ukraine’s past (psychiatric hospitals used as prisons for political opponents during the Soviet times) and to current practices in the Ukrainian health and administrative systems (patients treated for mental illness being barred from becoming public servants). Furthermore, focus group discussions conducted in preparation for this project showed that Ukrainian refugees are not well informed about formal MH care in Germany and are reluctant to seek help while their relatives and friends are directly exposed to the war. Mothers, who are over-represented among refugees, often express a duty to self-sacrifice for their families.

1.2 Policy and research objectives

This project aims to increase the uptake of formal mental health (MH) care by Ukrainian refugees in Germany.

Specifically, the intervention’s goals are to (i) facilitate access to formal MH care within the German medical system; (ii) orient refugees with heterogeneous medical needs and constraints; and (iii) overcome informational and behavioral barriers to MH uptake, including stigma and self-stigma.

The overarching research goal is to provide evidence on the impact at scale of an anti-stigma and information campaign promoting mental health uptake in a vulnerable population. To do so, we conduct a nation-wide randomized controlled trial in social media, leveraging and combining various elements:

¹Of course, the supply of formal mental health services for Ukrainian refugees could be further improved (tighter geographical coverage, improved information), and this would become critical if demand was to increase substantively.

- role models to convey anti-stigma messages,
- peer-to-peer dissemination of messages seeded within social networks,
- behavioral levers to reduce the psychological and material costs to action.

The intervention and the impact evaluation are jointly designed by a multidisciplinary team (in economics, social psychology, and psychiatry). It builds upon existing knowledge on effective and cost-effective interventions to increase MH care uptake, and aims to further reduce knowledge gaps by testing alternative approaches in a common, real-life setting.

1.3 State of the art

MH of refugees There is a vast literature motivating MH interventions among refugees. Poor mental health is an important barrier to the well-being and labor market integration of refugees (Bogic *et al.*, 2015, Dietrich *et al.*, 2023, Kosyakova and Kogan, 2022), and stigma is a key barrier to seeking help (Clement *et al.*, 2014).

Anti-stigma interventions There is an important literature in social psychology on the design and the effectiveness of campaigns to reduce stigma and increase the uptake of MH care (see, in particular, reviews by Clement *et al.* (2013) and Mehta *et al.* (2015)). Interventions addressing stigma tend to increase help-seeking among individuals with poor mental health (Xu *et al.*, 2018). Contact with individuals with personal experience of mental health conditions has been shown to be effective to reduce stigma, whether it takes place in person or indirectly, for example, through video testimonies (Maunder and White, 2019, Thornicroft *et al.*, 2022).

Interventions at scale with vulnerable populations There is a current gap in the literature regarding how to implement anti-stigma and information interventions over social media and how to reach vulnerable, especially displaced, populations (Griffiths *et al.*, 2014). In particular, we are not aware of evidence building upon large-scale field experiments (Smith (2023) goes in that direction with Syrian refugees in Jordan, but at a limited scale).

Alternative mechanisms to trigger action in MH uptake Anti-stigma and information interventions typically involve a package of messages, and there are few within-study comparisons of alternative messaging or dissemination approaches. Studies in controlled environments (including lab experiments) investigate impacts

on various dimensions of attitudes towards mental health (MH social stigma and self-stigma, social stigma and self-stigma to help-seeking, see for instance [Nickerson et al. \(2020\)](#)) and on help-seeking intentions. However, recent experimental studies in economics show limited impacts on the actual uptake of services, even in the form of calling a hotline, suggesting that behavioral barriers to action (such as procrastination, or mental health conditions limiting the energy and/or the willingness to seek care) may be intertwined with stigma. Stigma and these additional behavioral barriers may also affect information sharing, which must in turn be taken into account in any dissemination strategy relying on peer-to-peer communication ([Smith, 2023](#)).

To sum up, the identification of (cost-)effective interventions on how to mobilize the accumulated knowledge on mental health attitudes to induce information sharing, peer-to-peer support, and formal MH care uptake is at the frontier of current research.

1.4 Intervention

The intervention builds on a preexisting hotline at a university hospital in Mannheim, the Central Institute of Mental Health (ZI), that has been providing local Ukrainian refugees with access to a psychiatric ambulance service since the first weeks after of the Russian large-scale invasion in 2022. **The core of the intervention is to substantially expand this hotline to make it a gateway for, and advertise it among, all refugees in Germany in need of formal MH care.**

The experimental hotline, served by three Ukrainian-speaking medical professionals (a psychiatrist, a psychologist, and a pediatrician), orients the person calling toward appropriate care within a Germany-wide network of MH professionals providing care in the Ukrainian language.

The hotline shall be advertised in a social media campaign. The campaign will use videos that provide information on the hotline and the main features of formal MH in Germany (full coverage by health insurance, confidentiality), as well as anti-stigma messages conveyed by role models. The videos will be displayed on a Telegram bot built specifically for the project, that offers four follow-up actions: (i) calling the hotline with a clickable link or the phone number, (ii) requesting to be called by staff from the hotline; (iii) requesting to receive a reminder (message from Detsy bot reminding them to watch the video or call the hotline); (iv) clicking to share the link to the Detsy bot to refugees they know in Germany.

Ukrainian refugees will be invited to the project bot in two main ways: (i) “seed” users shall be directly recruited through physical channels (posters and flyers at

language centers) and through virtual channels (pinned messages in existing regional Telegram groups of Ukrainian refugees, messages sent by Ukrainian influencers, links on websites used by Ukrainian refugees); (ii) “higher-order” users shall be recruited by other users of the bot that share the link to the project bot.

Putting these three elements together, the basic theory of change of the intervention is the following:

1. Seed users are recruited to the project bot and watch the videos.
2. (Some) seed users call the hotline or ask to be called, and/or share the link to the project bot.
3. The video link is disseminated to higher-order users, through Ukrainian refugees’ networks.
4. (Some) higher-order users call the hotline and get access to reliable MH care, customized to their needs.
5. The uptake of formal mental health (MH) care by Ukrainian refugees in Germany is increased.
6. (Not directly measured in this research.) The mental health condition of Ukrainian refugees improves.

2 Intervention protocol: The Depsy bot and hotline

The project bot and the hotline are baptized “Depsy” playing upon the double meaning of “De” — “where” in Ukrainian and the first letters of Germany (Deutschland) in German. The bot was specifically designed for the experimental intervention, while the hotline was expanded based on the existing hotline mentioned above.

2.1 Depsy bot

The bot is designed as a tool to include participants, track simple actions (clicks, link sharing), display the video, send follow-up messages, facilitate dissemination, and link to the hotline. Importantly, the bot is the only way to access videos that are not available publicly on the Internet. This allows us to record single Telegram users viewing the video.

The bot is *not* designed for discussions or to gather any medical or personal information. For data safety reasons and to ensure quality human contact, interactions

with the program staff take place on the phone, at the hotline, rather than online. The only exception concerns the possibility of online discussion on Telegram outside of the bot, in particular for “allies” (see below).

The “user experience” of the bot is displayed in [Figure 1](#).

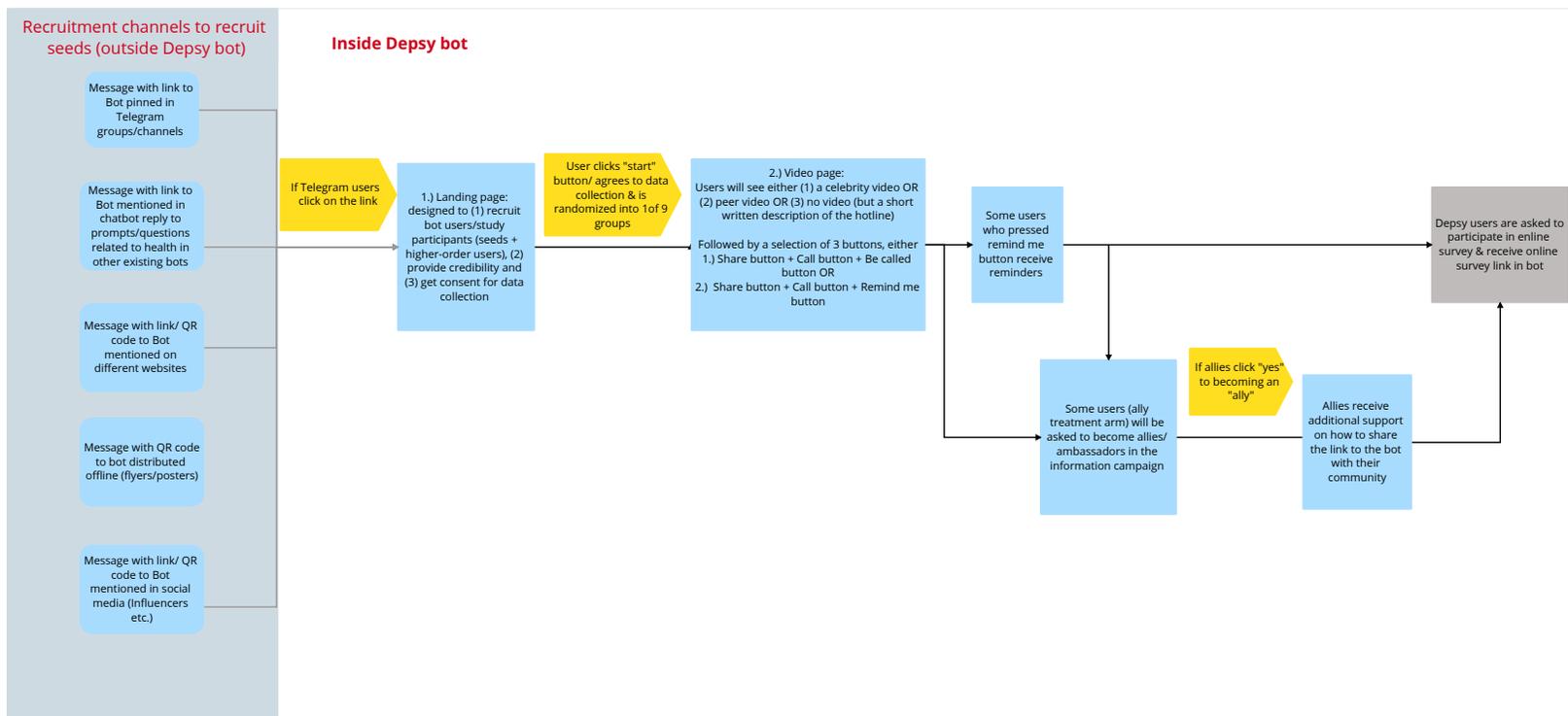


Figure 1: User experience on Depsy bot

Users reach the Depsy bot on Telegram thanks to a link or QR code (from a poster or from various social media including Telegram, for seed users, or shared by other users of the bot, in the case of higher-order users). Depending on the exact recruitment channel, the initial invite to connect to the bot varies slightly.

After opening the Depsy bot, the users see additional messages (bubbles) with a quote about resilience and note on data regulation. After clicking, they reach a page (similar to a webpage, but embedded in the Depsy bot) that displays the video screen and three action buttons that allow to (i) share the link to the bot, (ii) call the hotline (by clicking a link or typing the phone number displayed), (iii) (depending on treatment arm) request to be called by the hotline staff (with possibility to choose the time slot) OR being reminded of the hotline.

2.2 Depsy hotline

The experimental hotline is served by Ukrainian-speaking medical professionals based in Germany, some of whom have a refugee background. The main goal of the hotline is to offer assistance in navigating the German mental health system for Ukrainian refugees in Germany. The hotline staff consults in Ukrainian or Russian language on the mental health support that fits each caller best. They also provide information on how to get professional help in Germany, share contact information for different treatment options in Ukrainian and Russian language German-wide, and help to find solutions to bridge the time until the first appointment with a specialist or in urgent cases. The hotline service is free of charge, and strict confidentiality is guaranteed. Furthermore, connection to high-quality service providers in Germany is the key service and goal. The following “mission statement” clarifies the expected value-added of the hotline:

We offer help to get psychological support Germany-wide in the native language. We act as a bridge for non-German-speaking Ukrainian refugees to the German mental health system.

We provide

***support:** we are Ukrainians based in Germany;*

***orientation:** where to get appropriate help given your situation;*

***education:** how the German health and insurance system is functioning;*

***information:** we collect and share contact data for treatment options.*

We provide access to various services, customized to emotional and psychological problems: a welcoming ear, first medical orientation, medical referrals covering bridging solutions, access to longer-term therapy. We aim to respond to such frequent questions as: Where can I find a Ukrainian-speaking psychiatrist? What should I do if I cannot get an appointment for several months? Can I afford to see a psychologist in Germany?

We are working within the German health care system, and are based at Mannheim ZI: this guarantees strict anonymity – by German law – and connection to high-quality service providers in Germany. This network allows us to support for the last mile, helping those who struggle to secure appointments or get appropriate support.

2.3 Intervention details

Videos. As detailed in section 3 below, there are two versions of the video. The videos with English subtitles are available here: [celebrity video](#) and [peer video](#). In more detail:

1. *Peer video* (3:30 interview + appr. 1 min call for action). The first part of the video contains a 3:30 min interview between a Ukrainian patient, currently in treatment at Central Institute of Mental Health (ZI) and a Ukrainian psychiatrist. The topics addressed during the interview are based on qualitative interviews with the target group, focus-group discussion and existing literature on cultural specific aspects of mental help stigma in Ukraine (Quirke *et al.*, 2021). In this authentic report, one representative Ukrainian (middle aged women with a teenager child) describes her experiences in receiving MH services in Germany. The presentation of a real psychiatrist (Ukrainian refugees herself) as the interviewer conveys the message that the MH professional involved in the project can personally connect to the experience of the target group (war; difficulties in adaptation in Germany). The interview tries to debunk some of the myth towards psychiatry: image of soviet punitive psychiatry, idea that it is not possible to discontinue a psychopharmacological treatment. The patient describes her initial symptoms and addresses her own help seeking stigma prior to the treatment. She also tells about her difficulties in language courses due to the symptoms load (a widely shared experience of Ukrainian refugees in Germany) and conveys a message of hope that a successful treatment resulted in a much higher level of functioning and quality of life.

The second part of the video is a “call for action” by Katheryna (the psychiatrist). She gives a brief service definition and stresses the confidentiality and that the consultation of the hotline is free of charge and the treatment in Germany is covered by the medical health insurance.

2. *Celebrity video* (introduction slide 0:06 min + anti stigma video 2:12 + appr. 1 min call for action). It is an anti-stigma video released by the howareu_ program, a mental health initiative by the First Lady of Ukraine in Oktober 2023 <https://www.youtube.com/watch?v=X7-b9d3eEK4> dedicated to World Mental Health Day. The First Lady of Ukraine Olena Zelenska, presenters Yegor Gordeev, Timur Miroshnichenko, Masha Efrosinina, designer Katya Silchenko, Ukrainian singers Monatik and Sasha Zaritskaya from the band Kazka, bloggers Dasha Kvitkova and Vlad Shevchenko. They remind about how important it is to keep psychological balance and not to keep silent about one’s problems. The protagonists recite verses by the singer Monatik.

With the permission of the program, we have embedded the video in the information about our hotline and combined with the same “call for action” video fragment as for the peer video where Katheryna (psychiatrist) gives a brief service definition and stresses the confidentiality and that the consultation of the hotline is free of charge and the treatment in Germany is covered by the medical health insurance.

Recruitment of seeds. We recruit seed users through various channels that allow us to reach sufficient numbers in various subpopulations, and to compare their potentials at disseminating the videos.

1. *Pinned messages.* We partner with administrators of some of the 30 regional Telegram groups of Ukrainians in Germany who pin a pre-written message with a link to our bot in their Telegram group/channel
2. *Invites on chatbots.* We partner with Telegram chatbots offering MH support or more general help to Ukrainian refugees, so that they send an invite to the Depsy bot to users using some preselected keywords – some related to mental health such as “psychologist” (*targeted invites on chatbots*), and some non-related to mental health such as “housing” (*non targeted invites on chatbots*)
3. *Links on websites.* We partner with popular websites among Ukrainian refugees in Germany to post an ad with a link to the Depsybot.

4. *Posters and flyers.* We send flyers and posters to language centers where Ukrainian refugees learn German.

The goal is to recruit 2000 seeds. If after two months we are far from this target, we will launch a second recruitment wave mobilizing paid *influencers* to disseminate the invitation to the Detsy bot through a variety of social media (Telegram, but also Instagram, Facebook, and potentially Tiktok).

Seeds' additional engagement (ally treatment arms only). As detailed below, a random subset of seeds receive additional encouragement to share the link to the Detsy bot. This takes place through messages sent on the Detsy bot. The exact sequence of messages will be adjusted during the intervention based on feedback received from the seeds (responses to simple questions we ask them; number of times they have shared the link to the Detsy bot). It will use the following type of messages:

1. Active choice to become an ally: the message that would come after the seed has landed on the video page. Invitation customized based on viewing the video (fully watching/starting to watch / not watching). Message: x % of people reach out for help because some acquaintances reached out to them. We are conducting a research program – do you want to help us? [Yes - No - Remind me]
2. *If yes:* Engagement messages:
 - For those who have not watched the video fully, send reminders to view it.
 - Asking whether the seed has shared the video, and what barriers they face, whether we can help them identify relatives/friends to whom the video could be useful.
 - Providing some statistics on video viewing, reactions to video viewing / “We have received our first calls.”
 - Quotes from patients from ZI (on how helpful referrals were).
 - Other possible messages: “Did you know that if you share a personal experience / add a personalized message, people are more likely to feel engaged”; loose commitments: “Do you want us to touch base with you in three days to see whether you have reached to the persons you have thought about?”

3. Engagement messages are associated with buttons that seeds can click upon (simple responses: “I have not shared yet”, “Yes, I’d like to know more”; wish to have a discussion with the community manager in which case we send the contact of the community manager for a regular Telegram conversation outside the bot).

Note. By convention, we will refer to **seeds** (or **seed users**) when talking about bot users that were invited to the bot directly via the above channels, as opposed to **higher-order users** for bot users who were invited by a seed user, or another higher-order. Among the seeds, we will call **allies** the seeds who are (randomly) invited to become ambassadors of the program, and therefore receive additional encouragements to share the link within their network. The other half of seeds will be referred to as **non allies**.

3 Research questions

A first goal is to test the impact of anti-stigma videos in the case of Ukrainian refugees in Germany on **attitudes** to mental health and to **help-seeking intentions** for mental health support (questions Q1 to Q5 below). To this end, we mostly mobilize a **within-survey experiment**. This experiment also served as a pilot to test the videos and the hotline service, and was conducted in November. It is detailed below.

Our second goal is to test the **impact of alternative messaging and dissemination strategies** to increase the uptake of formal MH care. To this end, we mostly mobilize the **social media experiment**. Specifically, we consider that three questions are important for policy – to design and scale up an impactful anti-stigma intervention among refugees – and to shed light on open questions in the scientific literature (questions Q6 to Q8 below).

1. **How to leverage peers’ mediation to encourage the uptake of mental health support?** There is little doubt that peers (relatives, friends,...) matter a lot in hindering or facilitating the uptake of mental health support: peers are indispensable ambassadors. Yet, peers may be reluctant to play that role; they may convey counterproductive messages due to a lack of knowledge or because they are themselves affected by stigma. How to leverage their influence is an important question: theoretical arguments and some empirical evidence suggest that well-intended messages can backfire if rationally (and even more so irrationally) interpreted as signals that there is something wrong ([Bénabou and Tirole, 2003](#)). A recent experiment with Syrian refugees in Jordan shows

that refugees who had initially agreed to share information about mental health services hold back information, despite being compensated to share. Strikingly, they share information more frequently (+37%) when offered a “social cover” by disclosing that they were paid for sharing (Smith, 2023). Specifically, we test two approaches to peer mediation:

- **“Ally treatment.”** Reach out explicitly to members of the community and ask them to become our allies in an information campaign. Lead them through the process of thinking about who could need mental health support, and ask them to diffuse the video messages in a personalized way.
- **“Neutral dissemination treatment.”** Simply send video links to members of the community, providing them with a “share” button but no further instruction. The hope is that if the video attracts attention, those who receive it can disseminate it without feeling that they endorse a specific message without being perceived as invasive (neutral viral dissemination).

2. **How to use role models?** A precept of the anti-stigma literature is to leverage peers not only as ambassadors but more importantly as witnesses who can share their experience of mental issues and how mental health support helped them (e.g. conclusion in Quirke *et al.* (2021)). However, there is also evidence that “celebrities” (like Nobel Prize winners) may be highly effective in conveying public health messages (e.g. Banerjee *et al.* (2020)). This is an illustration of the trade-off when appealing to role models: proximity (somebody like me) vs. inspiration (somebody who can teach me, is well-known in my community, or whom I admire). Our second empirical goal is to compare the effectiveness of two different types of messengers (role models) in debunking mental illness stigma:

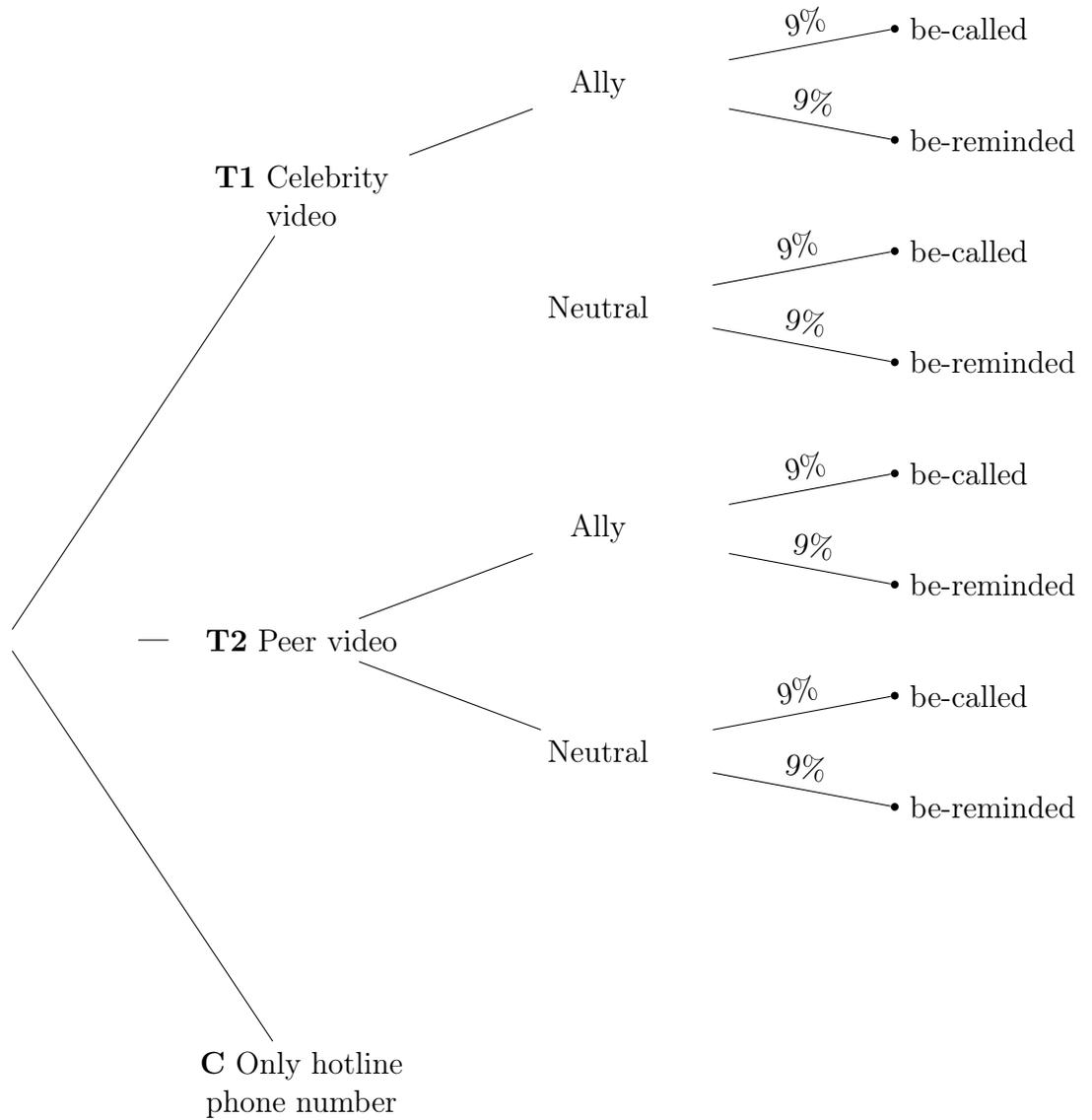
- **Celebrity messenger.** The message (in a video) that you should take care of your mental health even in times of crisis is carried by a celebrity (first lady, singers and TV stars)
- **Relatable peer.** The same message (in a different video) is conveyed through the personal history of a Ukrainian patient at the ZI ambulance service in Germany.

3. **How to lower the bar for action?** Even though calling a hotline may seem a minimum first step in help-seeking, evidence in the literature (Smith, 2023) and in the baseline results of the within-survey experiment shows that few

refugees are ready to take that step. In both instances, numbers of refugees calling a hotline were around 1% (among those who had received repeated messages (Smith, 2023) or viewed the video (within-survey experiment)). Besides informational and stigma-related barriers, this may indicate additional costs to take action due to procrastination or distortion of cognitive ability (e.g., lack of lucidity due to the MH condition). To reduce those behavioral barriers (“lower the bar”), we introduce a third action button with two alternative variations:

- **Be called.** The user is offered to be called by hotline staff at a time convenient to her. Evidence in Smith (2023) suggests that this option increases help-seeking by several orders of magnitude.
- **Be reminded.** The user is offered to receive a reminder, as a message sent on the project bot.

Figure 2: Social Media Experiment Design



4 Impact evaluation protocol

We test these approaches in two experiments with an individual-level randomized assignment to alternative treatments.

4.1 Within-survey experiment

During a short online survey that took place in November 2023, between two waves of a panel survey of Ukrainian refugees in Germany, we exposed respondents to one of two treatments (the celebrity video, or the relatable peer video), or a control situation (no video). Randomization took place at the individual level, without stratification.

This allows us to measure the immediate and 3-month impacts of the video on a (close to representative) sample of Ukrainian refugees. We did not experiment with alternative dissemination approaches nor alternative steps to action (the “be-called” option was designed after the baseline survey of the within-survey experiment).

The detailed protocol and pre-analysis plan in this document were finalized after the baseline survey of the within-survey experiment, and before the 3-month endline survey was available. A shorter pre-analysis plan dedicated to the within-survey experiment was however written before baseline data was available. It is displayed in Section 6.1.

4.2 Social media experiment

Randomization. We randomly assign **seed users** to one of **eight treatment arms** or to an **active control situation**. The treatment arm of **higher-order users** is the same as the treatment arm of the seed users that initiated the chain of shared links to the Depsy bot through which they accessed the bot. For instance, a third-order user has received the link to the Depsy bot from a second-higher-order user, who herself had received it from a seed user. If the seed user was assigned to a treatment with the celebrity video and the “be called” option, then she is assigned to the same treatment. Importantly, seed users of different arms are statistically comparable (as implied by random assignment) but higher-order users need not be comparable, as seed users in different arms may differently select those to whom they share the link.

Treatment arms. The eight treatment arms are obtained by cross-randomizing the two video treatments, the two dissemination strategies, and the two alternative action buttons ($2 \times 2 \times 2$ factorial design). The control seeds do not have access to

the videos and the other treatments (ally encouragement, be-called option). Instead, they are given a short, written description of the Depsy hotline with a number to call. This “active control” situation provides a benchmark for the treated seeds, in which minimum information is provided on the existence of the hotline, without any anti-stigma message or encouragement to dissemination.

Stratification and power. The randomization is stratified by recruitment channels (described in section 2.3). Seeds recruited via pinned messages in Telegram channels are further divided into two strata corresponding to large vs. small Telegram channels. In each stratum, 9% of seed users are assigned to each arm, and the remaining 28% are assigned to the active control group. We consider two main comparisons: all treatments (72%) vs. active control (28%), and comparisons within treatment seeds in each dimension (36% vs. 36%, e.g. all those assigned the “be called” vs. the “be reminded” option, pooling together all other treatments). With a sample size of 2000, at standard level $\alpha = .05$, for a power $k = 0.8$ and ignoring stratification, this yield minimum detectable effect of 0.14σ and 0.15σ , respectively.²

5 Data

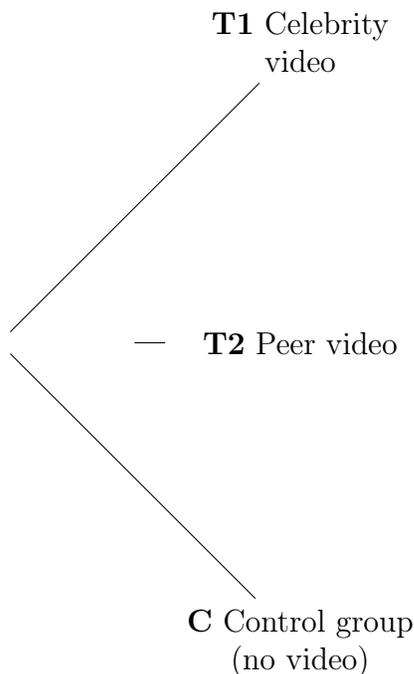
5.1 Within-survey experiment

The surveys of the within-survey experiment take the form of an ad hoc surveys between waves 3 and 4 of the refugee panel (our baseline) and questions added to the wave 3 of the panel. The two surveys are displayed in Sections A.1 and A.2.

In addition, a short research questionnaire is asked by staff at the hotline: see Section A.3.

²Computations for two-sample means test allowing for heteroskedasticity across arms. In Stata, *power twomeans 0, sd1(1) sd2(1) n1(560) n2(1440) power(0.8)* and *power twomeans 0, sd1(1) sd2(1) n1(720) n2(720) power(0.8)*, respectively.

Figure 3: Within-Survey Experiment



5.2 Social media experiment

5.2.1 Tracking data

The videos are displayed within Telegram, through a bot specifically designed for the experiment.

We record the hashed Telegram ID of each user opening the bot, the randomly allocated treatment group, a study ID, and the link ID to track higher-order users. We initially record the Telegram ID, but the ID will be hashed immediately and automatically for the dashboard.

We record information on video viewing (i.e., was the video watched and how long), and whether the user shared it via the “share” button of the bot, asked to be reminded to view the video, clicked the number of the hotline, or the be-called-button, as well as the timestamp for each pressed button.

We record the phone number of users who want to be called, but the phone number will only be used to call people back and not for research purposes. There might be an option to delete the numbers from the dashboard later on. We link seed users to higher-order users opening the bot (with the link ID). This allows us

to track the dissemination of the video by treatment, recruitment stratum, and seed user.

In the allies' treatment arms, we send messages to encourage users to share the video with other users. The messages are sent via the experiment's bot. We record whether the users clicked on buttons eliciting their interest/intention to share/need for further help. In case individual support is needed, the user has the option to start a private discussion outside of our bot with our hotline staff (here considered as "community managers"). This discussion will not be recorded.

In a few Telegram channels that grant us administrator rights, we track discussions to identify the use of words related to psychological support. This allows us to measure to what extent the intervention seems to trigger more open discussion on mental health issues.

The tracking data will be connected with the survey data using the record ID and/or timestamps.

The tracking data is stored until the study is completed on a Hetzner Server in Germany and accessible through a Dashboard, both are protected by a password and only accessible to some team members. Afterwards the data will be stored and shared with research group members on Nextcloud.

5.2.2 Call data and hotline surveys

Reporting/ Para data . If there is a call to the hotline, the operation system records the time and date of the call, whether it was successful (reached the hotline staff), its duration, and which hotline phone number was called (which identifies the treatment arm). This data is not available on the individual caller-level but is aggregated, e.g., by hour or by day.

Contact log . In addition, there is contact log data which is collected automatically once an agent is logged into the hotline. This data includes the caller's phone number, the call's time and date, whether it was successful, and its duration. This data is individual caller data but does not show which hotline phone number (treatment arm) was called. However, this information will be added manually later on. The phone number of the caller will be replaced by an ID before this data is shared with the research team.

Hotline Surveys . Callers contacting the hotline (by calling one of the phone numbers associated with the different treatment arms or by choosing the be called option) are asked a few questions in Questionnaire 1 (for hotline purposes) to orient

them to the appropriate service. This data is only collected for medical/hotline purposes and not for research.

In the second part of the same call, the medical staff asks a short questionnaire Questionnaire 2 (for research purposes), explicitly presented as a research survey aiming at improving the hotline. The survey includes information on the age category, gender, main symptoms (PHQ-4 and PCL scales), how the caller learned about the phone number of the hotline, and how many times the caller tried to call before. Moreover, at the beginning of the call, the interviewer also records the hotline phone number that was called (which identifies the treatment arm). Survey participants are asked for their consent at the beginning of the research survey and as to whether the survey data (Questionnaire 2) may be linked to the tracking data. The tracking data will be connected with the hotline survey data using the timestamps for callers and the study ID for the callers who wanted to be called.

The hotline research questionnaire is displayed in Section [A.3](#).

5.2.3 Baseline survey of Telegram users

About one week after their inclusion in the experiment (by clicking to view the video page), we will send all the Depsy bot users a short online survey. The survey link will be shared through our bot. The survey is presented as a research survey.

The survey includes only six questions:

- Gender
- Age group
- Life satisfaction
- Whether currently receiving formal MH treatment
- The PHQ-4 scale of depression and anxiety
- The PCL-5 scale of post-traumatic stress disorder.

Survey participants are asked for their consent at the beginning of the survey and as to whether the survey data may be linked to the tracking data. The tracking data will be connected with the survey data using the record ID (by generating different survey URLs for each Telegram User (using the record ID) and prefilling the record ID of this Telegram User in the survey. The baseline survey data is collected with RedCap. It is a web-based survey tool approved by ZI and the data collected with

the tool is stored on local servers at ZI in Germany and password protected and only certain users can access the data.

We expect response rates to this baseline survey might be low. The main uses of the survey information will therefore be to conduct some additional, exploratory analysis on (i) treatment effect heterogeneity; (ii) global effects of the intervention (see Section 7.3). For the rest of the analysis using tracking and hotline data, we will not restrict the analysis to respondents of the baseline survey.

5.2.4 Endline survey of Telegram users

At the end of the dissemination campaign, we send all our Telegram Bot users an online survey. The survey link will be shared through our bot. The survey will be refined based on responses to the BIB surveys of the within-survey experiment and the hotline surveys (Questionnaires 2 and 3). The survey is presented as a research survey aiming at improving the dissemination campaign.

The survey includes the exact same questions as the baseline survey, and in addition:

- Additional socio-demographic information (age, gewith children or not, partnership status)
- Attitudes to mental health and help-seeking
- Reactions to the video and whether they called the hotline

Survey participants are asked for their consent at the beginning of the survey and as to whether the survey data may be linked to the tracking data. The tracking data will be connected with the survey data using the record ID (by generating different survey URLs for each Telegram User (using the record ID) and prefilling the record ID of this Telegram User in the survey.

The endline survey data is collected in the same way as the baseline data.

The baseline and endline survey are displayed in Section A.5.

6 Analysis plan: within-survey experiment

In November 2023, we ran the first intervention by displaying the two videos within the panel of Ukrainian refugees. The goal of this experiment was to measure the immediate impacts of the two videos, and their impacts after three months. This section provides the pre-analysis plan written in December 2023, before the baseline data of that intervention were available.

6.1 Pre-analysis: immediate impacts

We measure the immediate impacts of the two video treatments on attitudes and intentions vis-à-vis psychological help. Our main research questions are

- Q1 Do the treatments reduce perceived barriers to seeking psychological support?
- Q2 Do the treatments reduce stigma related to seeking psychological support?
- Q3 Do the treatments increase help-seeking intentions?
- Q4 Do the treatments increase intentions to reach out to other refugees who need psychological support?

Specification. We consider intention-to-treat effects, i.e., the impact of being proposed to view one of the two videos rather than the control situation. We separately document the uptake of the treatment. Denote $T1$ (resp. $T2$) indicator variables for being assigned to the celebrity (resp. relatable peer) treatment arm. Given a random assignment to treatment within strata, we estimate OLS regressions of the form. Whenever lagged outcomes are available, we discretize them, center them, and introduce them as a control in a fully interacted model following (Athey and Imbens, 2017):

$$Y_{is} = \alpha + \beta_1 T1_{is} + \beta_2 T2_{is} + \delta_1 Y_{is}^0 + \gamma_1 Y_{is}^0 \times T1_{is} + \gamma_2 Y_{is}^0 \times T2_{is} + \varepsilon_{is}$$

where y_{is} is an outcome variable for individual i in stratum s , and Y_{is}^0 is a vector of centered indicator variables corresponding to five quintiles of the lagged outcome, y^0 .

Inference. We create one index for each of the four research questions. We test each question separately and do not adjust for multiple hypothesis testing (MHT) across the four research questions.

For each of the four research questions, we also run disaggregated analyses using the multiple outcome measures that enter the index. We then control the false discovery rate (FDR) using the Benjamini-Hochberg method presented in Anderson (2008).

6.1.1 Definition of main variables

All indexes are standardized to have a mean of 0 and a standard deviation of 1 in the control group.

- Q1 Do the treatments reduce perceived barriers to seeking psychological support?
- (a) Index: *Barrier*. Index using the 9 items of QI9 based on [Satinsky et al. \(2019\)](#), aggregated following [Anderson \(2008\)](#).
 - (b) Control: index *PastHelp* past help-seeking using the six items of QI4 ([Wilson et al., 2005](#)).
 - (c) Disaggregated outcome variables *barrier1 to barrier9*: separate analysis for each of the 9 items of QI9 (indicator variable for item>2).
- Q2 Do the treatments reduce stigma related to seeking psychological support?
- (a) Index: *StigmaHelp*. Self-stigma scale based on 10 items of QI11 ([Vogel et al., 2006](#)).
 - (b) Control: index *PastHelp* past help-seeking using the six items of QI4 ([Wilson et al., 2005](#)).
 - (c) Disaggregated outcome variables:
 - Sign of weakness (=1 if QI10-2 > median in the control)
 - Shame (=1 if QI10-4 > median in the control)
- Q3 Do the treatments increase help-seeking intentions?
- (a) Index: *SeekingIntentions*. Help-seeking intention scale based on ([Wilson et al., 2005](#)) using the six/seven items of QI12.
 - (b) Control: index *PastHelp* past help-seeking using the six items of QI4 ([Wilson et al., 2005](#)).
 - (c) Disaggregated outcome variables: for each of the seven items of QI12, create an indicator variable for value above the median in the control).
- Q4 Do the treatments increase intentions to reach out to other refugees who need psychological support?
- (a) Index: *ReachIntentions*. Index computed as the number of relatives or friends to whom it is likely the respondent would reach out to recommend seeking help:
 - (b) Control: no.
 - (c) Disaggregated outcome variables:
 - Thinks of relatives in need (indicator for QI13a=1)

- Number of relatives the respondent thinks are in need (QI13b, 0 if QI13a=0)
- Likely to help (create QI13c*=0 if QI13a=0 and QI13c*=QI13b otherwise, then take indicator for QI13c*>median in the control).

6.2 Three-month impacts

The analysis covers the same outcome variables and uses the same specifications as for the immediate impacts, with slightly fewer outcomes (to fit into the wave 4 of the panel survey, which has many more questions).

Pooled analysis In order to increase power, we also pool the data of the baseline and endline surveys, clustering standard errors at the respondent level.

7 Analysis plan: social media experiment

The research questions are

Q5 Impact of video campaign:

Q5a Does a video campaign combining information and anti-stigma messages increase the uptake of mental health care more than a simple written information message?

Q5b Does it reach different people?

Q6 Comparison of dissemination strategies:

Q6a Which combination of video \times ally/non-ally \times be called/be reminded increases uptake the most?

Q6b Do they reach different people?

Q7 Mechanisms: How do the different strategies impact dissemination?

Q8 Call to action: Does the option to be called lower the bar, and for whom?

7.1 Specifications and inference

Randomization is at the seed level, within seed recruitment strata. We use OLS with strata indicators. For count data, we also use Poisson models. Depending on the outcome, we are or are not able to have a comparable measure in control and treatment arms. When there is no control measure, we compare treatment arms against each other in two dimensions: ally vs. non-; peer vs. celebrity.

Denote Tk_{is} the indicator variable equal to 1 if the seed user is assigned to treatment arm $k \in 1, 2, \dots, 8$, and 0 otherwise. Denote T_{is} the indicator variable equal to 1 if the seed user is assigned to one of the eight treatment arm, and 0 if she is assigned to the active control situation. We have $T_{is} = \sum_{k=1}^8 Tk_{is}$.

Answers to question Q5 involve the control group and are specified as:

$$Y_{is} = \alpha + \beta T_{is} + \mu_s + \varepsilon_{is} \quad (1)$$

where y_{is} is an outcome variable for user i in stratum s , μ_s is a stratum fixed effect.

Answers to question Q6-Q7 involve comparisons across treatment arms; they are only estimated among treated seeds and higher order users and are specified as:

$$Y_{is} = \alpha + \beta_{\text{called}} T_{\text{called}} + \mu_s + \varepsilon_{is} \quad (2)$$

where y_{is} is an outcome variable for seed user i , T_{called} is equal to 1 in the four treatment arms that had the “be called” button, and 0 in the four treatment arms that had the “be reminded” button.

Samples. We systematically distinguish seed users from higher-order users. Seed users in the nine ($1 + 2 \times 2 \times 2$) experimental groups are statistically comparable being exposed to the treatments. Higher-order users are not: their number and their characteristics depend on whom the seeds shared the Depsy bot with, which may be impacted by the treatment arm. Any difference in outcomes of the higher-order users is therefore a mix of the direct effect of which treatment they were exposed to, and an indirect selection effect.

Samples and clustering. y_{is} can be measured (i) for seed users only (e.g. whether seed user i shares the link or not), (ii) at the seed user level but aggregating the outcomes of higher-order users of that seed user (for instance, the number of single viewers reached in the chain started by seed user i), or (iii) at the individual user level, including higher-order users $j(i)$ in the chain of seed user i . In the last case, standard errors are clustered at the seed level. In the other two cases, we use Eicker-
Huber-White heteroskedasticity robust standard errors.

Multiple hypothesis testing. We create one index for each of the four research questions. We test each question separately and do not adjust for multiple hypothesis testing (MHT) across the four research questions. For each of the four research questions, we also run disaggregated analyses using the multiple outcome measures that enter the index. We then control the false discovery rate (FDR) using the Benjamini-Hochberg method presented in [Anderson \(2008\)](#).

Heterogeneity analysis. We perform treatment effect heterogeneity analysis across five strata corresponding to the five recruitment channels listed in [2.3](#), which are available for the full sample, and by gender, current MH treatment status, high/low life satisfaction, and whether the person is affected by depression, anxiety, or PTSD, in the subsample that has responded to the online baseline survey. We control FDR using the Benjamini-Hochberg method presented in [Anderson \(2008\)](#).

7.2 Outcomes

Q5-Q6 Impact of video campaign on calls to the hotline. See shell Table [7](#). Outcomes are based on calls to the hotline. Calls are directly attributed to the different experimental groups thanks to the treatment-specific phone numbers. We disaggregate the analysis to look separately at seed users and higher-order users. We specify the variables in two ways:

- (a) *Aggregate counts* per treatment arm and socio-demographic group or MH condition. These counts cover all calls to the hotline, whether or not the caller clicked on the “call” link on the Detsy bot and agreed her call information to be matched with the bot information. The drawback is that this does not allow to link individual callers to the seed that started the sharing chain leading to them. As such, no inference is possible, as the unit of randomization, the seed, is not known.
- (b) *Caller characteristics* (socio-demographic and MH condition) per treatment arm. This part of the analysis is only possible for the subsample of callers who have used the “call” link on the Detsy bot and agreed their call information to be matched with the bot information. This makes it possible to conduct inference (with observations at the seed level, the unit of randomization).
- (c) We estimate intention-to-treat effects using models [\(1\)](#) and [\(2\)](#). No clustering of standard errors is needed. We provide Anderson q-value to ac-

count for multiple hypothesis testing. A family of tests correspond to the different subpopulations of callers (columns (2) to (5)).

- (d) In addition (not in the table shell), we split the hotline users in different groups (that correspond to the experience of the ZI initial hotline): 1. first time ever contacting professional MH support; 2. people who tried to reach out to some help but did not succeed for multiple reasons; 3. people who have already used professional MH support online in Ukraine, but not in Germany; 4. people who have been in treatment in Ukraine before the war; 5. people who are in treatment but look for an alternative (e.g. due to language barrier with the recent MH professional).

Q7 Mechanisms of dissemination. We split the analysis of this question in several parts that allow to describe the dissemination of the link to the Depsy bot. This heavily relies on the comprehensiveness of the tracking of actions made in the Depsy bot.

- (a) *Uptake of ally role.* Among seed users only, we analyze the uptake of ally role, with the following outputs: agreed to be an ally, number of times shared the video, number of times clicked on buttons attached to questions in the ally engagement sub-intervention (also disaggregated by type of engagement). We distinguish between allies from the different recruitment strata. We also analyze the impact of the other treatment variations (celebrity vs. peer video in particular) to check for potential complementarities between ally engagement and the type of video. See shell Table 10 for an illustration.
- (b) *Dissemination of the videos.* At the seed level, we analyze the number of users reached, the length of the sharing chain (number of orders of sharing), and the width of the sharing chain (average number of users at each order). We test differences by treatment arms according to models (1) and (2). We further disaggregate the analysis by recruitment channel (strata). See shell Table 8 for an illustration.
- (c) *Reactions to videos.* At the individual bot user level, we analyze the actions taken by users after watching the video. We distinguish seed users and higher-order users. The outcome variables are the following indicator variables: started viewing the video; fully watched the video; asked to be reminded or asked to be called (depending on treatment arm); shared the video; (unconditional) number of times shared the video; clicked on phone link. See shell Table 9 for an illustration.

Q8 **Call to action.** We analyze separately the reactions of the two subsamples in the be-called / be-recommended treatment arms. We analyze separately seed users and higher order users, and further disaggregate by socio-demographic characteristics on the subsample of respondents to the baseline online survey. We analyze whether clicks on these two options vary by other treatment arms (celebrity vs. peer video, in particular), to test for complementarity.

7.3 Further exploratory analysis

On top of research questions Q5 to Q8, one may be interested in exploring the following two questions:

Q9 What is the impact of the different dissemination strategies on the mental health of the people reached?

Q10 What is the overall impact of the intervention on MH care uptake of Ukrainian refugees in Germany?

We stress that the social media experiment was not primarily designed to answer these questions. However, we aim to provide exploratory evidence on these two questions.

Impacts on mental health (Q9). The online endline survey of bot users contains self-reported measures of MH status, in the form of two scales (PHQ-4 and PCL-5), and a self-reported measure of life satisfaction. We compare active control vs. treated users following equation 1, and compare alternative treatment aims following equation 2. Importantly, we expect these results to be imprecise and possibly non-significant for three reasons

- they are very short-term (2 months) while effect on MH may take time to materialize;
- they are only measured among respondent to an online survey in which, by experience, we expect response rates of 20% or less;
- only-fraction of the respondent will have received MH through the hotline (imperfect compliance).

We insist that our ex ante criterion of success is the existence of meaningful, statistically significant impacts, not on this exploratory measure of mental health impact, but rather on our **primary outcome, calls to the hotline**. We trust that

the quality of the referrals and of formal MH in Germany imply that such an impact would translate into better MH outcomes, even though we might not be able to show them empirically.

Overall impact (Q10). In addition to the individual-level randomization, we activate the different recruitment channels following a clustered randomized phase-in approach. We compare the MH outcomes of and the MH treatment received by users arriving to Depsy bot during the second half of April vs. users arriving to the Depsy bot during the second half of June. We make that comparison in the second half of June, so that only the first group (early treated T) has benefited from the intervention. The other late treated constitute our control (C). These two groups are randomized at the Telegram group channel and at the language center level, stratifying by geographical areas. We enforce the randomized phase-in at the language centers by visiting them in person to make sure that the posters and flyers are there in due time. We monitor the seeding on the Telegram groups (pinned messages), and rectify with administrators if needed. We use the online endline survey to measure outcomes for the early treated group. For the control, we run a short baseline survey with six questions: gender, age group, life satisfaction, whether currently under treatment, and two psychometric scales (PCL-5 for PTSD and PHQ-4 for depression and anxiety). To allow comparison between T and C, these six questions are also the first six questions of the (slightly longer) endline questionnaire.

With this set-up, we can conduct the following new pieces of analysis:

- Endline T vs. baseline C: overall impact of evaluation.
- Baseline T vs. baseline C: balancing checks.
- Response rates at endline T vs. baseline C: attrition (possibly taken into account with some kind of Lee bounds).

The value of the randomized phase-in is to allow us to identify a proper control population that self-selects into Depsy bot (something we would not be able to have otherwise say, e.g. with admin data), which is indispensable to get statistical power. Two caveats make this analysis exploratory:

1. There will be about 20 Telegram groups and 16 language centers to randomize from. We plan a 2/3 - 1/3 split (for early and late treated, respectively). Statistical power will be limited by the design effect due to the clustered design, and by non-response to the baseline and endline survey.

2. If dissemination is strong, then the late treated (C) may be selected: they are those who were not directed to the platform before thanks to the early treated (and the subsequent dissemination in refugees' network). Such selection would bias the comparison Endline T vs. Baseline C (non-comparable populations). However, (i) this selection is testable, thanks to the Baseline T vs Baseline C comparison; (ii) the contamination is less likely for seeds brought to the DepsyBot by certain channels, in particular those who came after asking a question about, say, housing on a chatbot. We would restrict the analysis of the overall impact to that subgroup if it is the only one to pass the balancing checks.

7.4 Timeline

Figure 4: Timeline: Within-Survey (BIP) and Social-Media Experiments

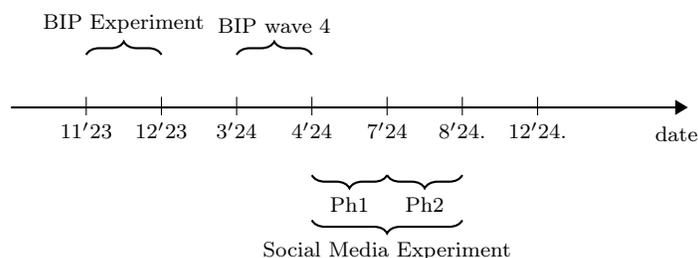


Figure 4 summarizes the timeline. On the top, it indicates core implementation phases in the within-survey experiment. The within-survey experiment took place in wave 3 of the BIP Ukrainian refugees survey (November/ December 2023). The next wave, with the core outcomes of interest, began in March 14, 2024 and is ongoing as we compile the PAP. The core team had no access to and did not analyze the data as of April 12, 2024. On the bottom, it outlines the planned steps for the social media experiment. The implementation is planned in two phases: Phase 1 shall start in April and continue until June, 2024. While phase 2 shall begin in June and end in August, 2024. A survey will be implemented between Phase 1 and Phase 2.

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A Questionnaires

A.1 Baseline of within-survey experiment

Questionnaire Intervention Study

Final Version - 8. November 2023

Preload_1	<p>Aufenthaltsland letzte Befragung:</p> <p>1) in W3: Deutschland Land_w3=1 Wenn keine Teilnahme in W3: Preload_1 (aus Welle 3)=1</p> <p>2) in W3: Ukraine Land_w3=2 Wenn keine Teilnahme in W3: Preload_1 (aus Welle 3)=2</p> <p>3) in W3: Drittstaat Land_w3=3 Wenn keine Teilnahme in W3: Preload_1 (aus Welle 3)=3</p>
Preload_5	<p>Befragungszeitraum letzte Befragung:</p> <p>1) Wenn Teilnahme in W3: Befragungsdatum (Juni oder Juli 2023) aus 3. Welle</p> <p>2) Wenn keine Teilnahme in W3: Befragungsdatum letzte Befragung = Preload_5 aus Welle 3</p>
Preload_6	<p>Gruppenzugehörigkeit (Vergabe in Stichprobe)</p> <p>1) Video Patientin</p> <p>2) Video Celebrity</p> <p>4) Kein Video</p>

Landingpage1	<p>Welcome to our survey „Geflüchtete aus der Ukraine“. Thank you for your willingness to further support us and participate in the survey. In which language would you like to answer the questions?</p> <p>Ukrainian [PROG: Landingpage Ukrainian] Russian [PROG: Landingpage Russian]</p>		
Landingpage2	<p>Dear participant, Dear Participant,</p> <p>We would like to know more about how we can help people from Ukraine.</p> <p>It will take about 10 minutes to answer.</p> <p>Your participation is of course voluntary. Your information will be kept strictly confidential. You can find more details above under "Privacy". In addition to your answers, technical information will be collected in the online survey exclusively for scientific purposes, for quality assurance and for the optimal display of the questionnaire on your device and will be evaluated without drawing any conclusions about you personally.</p> <p>To give your consent to participate in this survey and to the processing of your data, enter your access code in the field below and then click on the button "Start/Continue survey". This will start or continue the survey.</p> <p>[Individual CAWI Access Code]</p> <p>Button: Start/continue survey</p>		
B001	<p>To begin with, it is a matter of whether your current location or your current living situation has changed.</p>		

Q01(P01)	Have you moved since the last survey in [Preload 5]? <i>If you have moved several times, please refer to the last move. Please also enter removals within [if Preload_1==1: Germany if Preload_1!=1: of the country in which you currently live].</i> Yes No	1 2	
Q02(P02)	Now please think about your last move. Was this ...		
Q01(P01) == 1 & Preload_1 !=2	... within the same city or municipality? ... to another city or municipality? ... to Ukraine? ... to another country?	1 2 3 4	
Q02_b(P02_b)	Now please think about your last move. Was this ...		
Q01(P01) == 1 & Preload_1 ==2	... within the same city or municipality? ... to another city or municipality? ... (back) to Germany? ... to another country?	1 2 3 4	
Q05	Which country did you move to? Dropdown [list of countries]		
(Q01==1& Q02==4) (Q01==1& Q02b==4)			
Help variables	Land_Int Germany (1): Preload_1==1 & Q01==2 Preload_1==1 & (Q01==1 & (Q02 ==1 Q02==2)))Preload_1==2 & Q01==1 & Q02b== 3 Preload_1==3 & Q01==1 & Q02 == 4 & Q05== Germany Preload_1==1 & Q01==1 & Q02==4 & Q05==Germany Preload_1==2 & Q01==1 & Q02_b==4 & Q05==Germany Ukraine (2): Preload_1==2 & Q01==2 Preload_1==2 & Q01==1 & (Q02b==1 Q02b==2) Preload_1==2 & Q01==1 & Q02_b==4 & Q05==Ukraine Preload_1!=2 & Q01==1 & Q02==3 Preload_1==3 & Q01==1 & Q02==4 & Q05==Ukraine Preload_1==1& Q01==1 & Q02==4 & Q05==Ukraine Third country (3): Preload_1== 3 & Q01==2 Preload_1==2 & Q01==1 & Q02b==4 & Q02==4 & Q05 != Germany & Q05!=Ukraine Preload_1==1 & Q01==1 & Q02==4 & Q05 != Germany & Q05!=Ukraine Preload_1==3 & Q01==1 & Q02==4 & Q05 != Germany & Q05!=Ukraine Preload_1==3 & Q01==1 & inlist(Q02,1,2)		
B002	We will now proceed with some questions about your feelings, well-being as well as some general attitudes.		
QI2	<i>PROG: Please only show the additional answer option for answer 5 (childcare) and set something apart from the scale: "Does not apply".</i>		Soep Core

	<p>How satisfied are you currently with the following areas of your life?</p> <p>How satisfied are you ...</p> <p>... with your family life?</p> <p>... with your personal income?</p> <p>... with your professional situation?</p> <p>... with your current living situation?</p> <p>... with the childcare available?</p> <p><i>Completely dissatisfied (0) – Completely satisfied (10)</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p>	
QI3	<p>How often have you felt negatively affected by the following complaints in the last two weeks?</p> <p>Little interest or pleasure in your activities?</p> <p>Low spirits, melancholy or hopelessness?</p> <p>Nervousness, anxiety or tension?</p> <p>Unable to stop or control worrying?</p> <p><i>1 Not at all – 2 On some days – 3 On more than half the days – 4 (Almost) every day</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p>	PHQ-4 (see Scales Manual)
QI8	<p>How would you describe your current health?</p> <p><i>Very good 1 – Good 2 – Satisfactory 3 – Poor 4 – Bad 5</i></p>		
QI5NEW	<p>How easy would you say it is to ...</p> <p>... find information on how to manage mental health problems like stress or depression?</p> <p>... find out where to get professional help when you have mental health problems?</p> <p><i>1 very easy – 2 easy – 3 difficult – 4 very difficult</i></p>		Health Literacy Survey (HLS-EU)
QI4	<p>Did you seek help for a personal or emotional problem from the following people in the past 6 months?</p> <p>a. Partner, wife, husband</p> <p>b. Friends or family</p> <p>c. Acquaintance</p> <p>d. Psychologist, psychotherapist, psychiatrist</p> <p>e. General practitioner</p> <p>f. Online psychological support (e.g. conversation or chat with psychologist)</p> <p><i>1 Yes – 2 No – 3 Does not apply to me</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p>	Past help seeking (from Deane et al. 2001, General Help-Seeking Questionnaire)
QI6	<p>The following statements may apply more or less to you personally. <i>Please indicate to what extent they apply to you.</i></p> <p>In an argument, I always remain objective and stick to the facts. Even if I am feeling stressed, I am always friendly and polite to others.</p> <p>When talking to someone, I always listen carefully to what the other person says.</p> <p>It has happened that I have taken advantage of someone in the past.</p> <p>I have occasionally thrown litter away in the countryside or on to the road.</p> <p>Sometimes I only help people if I expect to get something in return.</p> <p><i>doesn't apply at all (1) to applies completely (5)</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p>	Question to spot desirability bias tendency

<p>Pre-load_6==1 2</p>	<p>In the following, we would like to show you a video on psychological support for refugees in Germany. Following the video the questionnaire continues with some additional questions.</p> <p>Video</p> <p><i>PROG: Please put the following sentence on the same screen as the video, but under the video (with a bit of space between the video and the sentence)</i></p>		
<p>Help Pre-load_6==1 2 & Land_Int=1</p>	<p>If Preload_6==1 We understand that discussing psychotherapeutic or psychiatric treatment can be challenging. If you or a loved one need help or have questions, reach out to 0621-1703-3070.</p> <p>If Preload_6==2 We understand that discussing psychotherapeutic or psychiatric treatment can be challenging. If you or a loved one need help or have questions, reach out to 0621-1703-4080.</p> <p>The confidentiality of your request is guaranteed by the German law. There is no additional charge for this service beyond standard German fixed network rates. We encourage you to note down this number now. The hotline operating hours are from Monday to Friday (excluding public holidays), 11.00 am to 3pm</p>		
<p>B003 Preload_6==1 2</p>	<p>In the video we just showed you, one of the issues discussed was help for people with mental health problems. In the following we are now interested in your opinions on this matter.</p>		<p>UKR W3</p>
<p>QI9</p>	<p>What would deter you from seeking help for a mental health problem from a professional in [if Land_Int==1: Germany] [if Land_Int==2: Ukraine] [if Land_Int==3: the country you are living in]?</p> <p><i>Please indicate how important the following reasons are for you.</i></p> <p>Anxiety of lack of confidentiality 1 Lack of knowledge of the availability of the service 2 Fear of being judged by others 3 [if Land_Int!=2] Language barrier 4 The cost of the treatment 5 No time resources to look for a specialist 6 [if Land_Int=1] Distrust for the German medical system 7 Distrust of mental health professional 8 [if Land_Int!=2] Preference for help from Ukrainian mental health professionals remotely rather than in the [if Land_Int=1: German] if Land_Int=3: local] medical system 9</p> <p><i>Not important at all (1) to Very important (4)</i></p>		<p>Perceived barriers to help seeking (adapted from Satinsky et al. 2019)</p>
<p>QI10</p>	<p>The following statements may apply more or less to you personally. <i>Please indicate to what extent they apply to you.</i></p> <p>To have a mental health problem is a sign of weakness. 1 To seek help for a mental health problem is a sign of weakness. 2 I would feel ashamed if I had a mental health problem 3 I would feel ashamed to seek help for a mental health problem 4</p> <p><i>Not at all (1) to Very much (7)</i></p>		<p>Short questions on attitudes to MH and help seeking (from previous studies by Nicolas Rüsçh)</p>

QI11	<p>People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean to them. <i>Please rate the degree to which each of the following statements describes how you might react in this situation.</i></p> <p>I would feel inadequate if I went to a therapist for psychological help. 1 My self-confidence would <u>not</u> be threatened if I sought professional help. 2 Seeking psychological help would make me feel less intelligent. 3 My self-esteem would increase if I talked to a therapist. 4 My view of myself would not change just because I made the choice to see a therapist. 5 It would make me feel inferior to ask a therapist for help. 6 I would feel okay about myself if I made the choice to seek professional help. 7 If I went to a therapist, I would be less satisfied with myself. 8 My self-confidence would remain the same if I sought professional help for a problem I could not solve. 9 I would feel worse about myself if I could not solve my own problems. 10 11</p> <p><i>1 Strongly Disagree – 2 Disagree – 3 Agree & Disagree Equally – 4 Agree – 5 Strongly Agree</i></p>		Self-stigma related to help seeking (10-item Self-Stigma of Seeking Help Scale (Vogel et al. 2006))
QI12	<p>How likely is it that you would seek help from each of these people for a personal or emotional problem over the next four weeks?</p> <p>Partner, wife, husband 1 Friends or family 2 Acquaintance 3 Psychologist, psychotherapist, psychiatrist 4 General practitioner 5 Online psychological support (e.g. conversation or chat with psychologist) 6 I would not seek help from anybody. 7</p> <p><i>extremely unlikely (1) to extremely likely (7) & does not apply to me at all (8)</i></p>		Help-seeking intentions (from Deane et al. 2001, General Help-Seeking Questionnaire and the Actual Help-Seeking Questionnaire)
QI13a	<p>Can you think of some of your relatives or Ukrainian friends living in Germany who would benefit from some mental health support (psychologist, general practitioner, online psychological support, etc.)?</p> <p>Yes (1) – No (2)</p>		Intention to reach out to other refugees that need help
QI13b QI13a == 1	<p>How many?</p> <p>—</p>		
QI13c QI13a == 1	<p>How likely is it that you would reach out to them to recommend them to seek help?</p> <p><i>Not at all (1) to Vey much (7)</i></p>		
QI14	<p>The following statements ask about views in relation to people who have mental health problems (for example, people seen by healthcare staff).</p> <p>In the future, I would be willing to live with someone with a mental health problem.</p>	1	Attitudes vis-à-vis mental health (following Quirke et al.

	<p>In the future, I would be willing to work with someone with a mental health problem.</p> <p>In the future, I would be willing to live nearby to someone with a mental health problem.</p> <p>In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.</p> <p><i>Strongly disagree (1) to Strongly agree (5)</i></p>	2 3 4	2021, using the Reported and Intended Behaviour Scale (RIBS) – Intended behaviour items)
B004 Preload_6 ==1 2	At the end of this survey, we would like to come back to the video that we have shown you, since we are very interested in improving the information that we provide and the way how we provided it.		
QI15 Preload_6 ==1 2	<p>Following, we have a few questions regarding the video you just watched.</p> <p>How much do you agree with the following statements?</p> <p>The video caught my attention.</p> <p>The video provided new information.</p> <p>The video provided useful information.</p> <p>I would like to forward the videos to friends or relatives to whom I feel it could be useful.</p> <p><i>Strongly disagree (1) to Strongly agree (5)</i></p>	1 2 3 4 5	Questions on the video (adapted from Nickerson et al. 2019, Questions on program usability)
QI20	<p>We would like to ask you about your overall satisfaction with your life.</p> <p>How satisfied, all things considered, are you with your life at present?</p> <p><i>Not satisfied at all (0) to Completely satisfied (10)</i></p>		UKR W2
QI17	<p>Related to help and support for Ukrainian refugees, do you know the following website “https://www.germany4ukraine.de” from the German Government?</p> <p><i>Yes (1) – No (2)</i></p>		
QI18 QI17 == 1	<p>Have you ever been on this website?</p> <p><i>Yes (1) – No (2)</i></p>		
QI19 QI18 == 1	<p>Do you find the information by this website useful?</p> <p><i>Not useful at all (1) to Very useful (5)</i></p>		
Endpage	<p>We have now reached the end of the survey. Thank you very much for your support!</p> <p>If Preload_6==1 & Land_Int==1 If you need any assistance regarding mental health services in Germany do not hesitate to call our hotline on 0621-1703-3070.</p> <p>If Preload_6==2 & Land_Int==1 If you need any assistance regarding mental health services in Germany do not hesitate to call our hotline on 0621-1703-4080.</p> <p>For the success of this study, it is important that we can reach you again. We therefore ask you to notify us of any changes in your contact information. To complete this year's survey and go</p>		

	to the address update, please click on the button "Complete survey". You will then no longer be able to return to the survey.		
Adress-tool	<p>Please fill in the following fields as completely as possible and in Latin letters. Of course, all information is voluntary. In order for us to be able to contact you in the future as simple and easy as possible, please also enter an e-mail address and telephone number.</p> <p>Please enter your first and last name in Latin letters exactly as they appear on your residence title.</p> <p><i>PROG: Please display the passage written above for the first and last name both above the first and last name and as an error message text as soon as a person tries to enter Cyrillic information.</i></p> <p>First name Last name E-mail address Telephone area code Phone number Street and house number POSTCODE City Country</p>		

A.2 Comparison between baseline and endline of within-survey experiment

	Questionnaire Intervention Study November 2023				Included Items in Questionnaire Wave 4 March 2024	
Landing page1	Welcome to our survey „Geflüchtete aus der Ukraine“. Thank you for your willingness to further support us and participate in the survey. In which language would you like to answer the questions?			-	-	-
Landing page1	Ukrainian [PROG: Landingpage Ukrainian] Russian [PROG: Landingpage Russian] Welcome to our survey „Geflüchtete aus der Ukraine“. Thank you for your willingness to further support us and participate in the survey. In which language would you like to answer the questions?			-	-	-
Landing page2	Ukrainian [PROG: Landingpage Ukrainian] Russian [PROG: Landingpage Russian] Dear participant, Dear Participant, We would like to know more about how we can help people from Ukraine. It will take about 10 minutes to answer. Your participation is of course voluntary. Your information will be kept strictly confidential. You can find more details above under "Privacy". In addition to your answers, technical information will be collected in the online survey exclusively for scientific purposes, for quality assurance and for the optimal display of the questionnaire on your device and will be evaluated without drawing any conclusions about you personally. To give your consent to participate in this survey and to the processing of your data, enter your access code in the field below and then click on the button "Start/Continue survey". This will start or continue the survey.					

	[Individual CAWI Access Code]						
B001	Button: Start/continue survey To begin with, it is a matter of whether your current location or your current living situation has changed.						
Q01(P01)	1) Have you moved since the last survey in [Preload 5]? <i>If you have moved several times, please refer to the last move. Please also enter removals within [if Preload_1=1: Germany / if Preload_1!=1: of the country in which you currently live].</i>	1 2					
Q02(P01)	2) Now please think about your last move. Was this ...						
Q01(P01))=1 & Preload_ 1=2	... within the same city or municipality? ... to another city or municipality? ... to Ukraine? ... to another country?	1 2 3 4					
Q02 (b) P02_1b)	Now please think about your last move. Was this ...						
Q01(P01))=1 & Preload_ 1=2	... within the same city or municipality? ... to another city or municipality? ... (back) to Germany? ... to another country?	1 2 3 4					
Q05	Which country did you move to? Dropdown [list of countries]						
(Q01=1 &Q02= 4) 1 (Q01=1 &Q02b= =4)							

Help variables	Land_Int				
<p>Germany (1):</p> <pre> Preload_1=1 & Q01=2 Preload_1=1 & (Q01=1 & (Q02=1 Q02=2)))Preload_1=2 & Q01=1 & Q02b=3 Preload_1=3 & Q01=1 & Q02=4 & Q05=Germany Germany Preload_1=1 & Q01=1 & Q02=4 & Q05=Germany Preload_1=2 & Q01=1 & Q02_b=4 & Q05=Germany </pre> <p>Ukraine (2):</p> <pre> Preload_1=2 & Q01=2 Preload_1=2 & Q01=1 & (Q02b=1 Q02b=2) Preload_1=2 & Q01=1 & Q02_b=4 & Q05=Ukraine Preload_1=2 & Q01=1 & Q02=3 Preload_1=3 & Q01=1 & Q02=4 & Q05=Ukraine Preload_1=1 & Q01=1 & Q02=4 & Q05=Ukraine </pre> <p>Third country (3):</p> <pre> Preload_1=3 & Q01=2 Preload_1=2 & Q01=1 & Q02b=4 & Q02=4 & Q05=Germany & Q05=Ukraine Preload_1=1 & Q01=1 & Q02=4 & Q05=Germany & Q05=Ukraine Preload_1=3 & Q01=1 & Q02=4 & Q05=Germany & Q05=Ukraine Preload_1=3 & Q01=1 & inlist(Q02,1,2) </pre>					
B002	<p>We will now proceed with some questions about your feelings, well-being as well as some general attitudes.</p> <p><i>PROG: Please only show the additional answer option for answer 5 (childcare) and set something apart from the scale: "Does not apply".</i></p>	Soep Core	Q93	<p><i>PROG: Please only show the additional answer option for answer 5 (childcare) and set something apart from the scale: "Does not apply".</i></p>	
Q12	<p>How satisfied are you currently with the following areas of your life?</p> <p>How satisfied are you ...</p>			<p>How satisfied are you currently with the following areas of your life?</p> <p>How satisfied are you ...</p> <p>... with your family life?</p>	1

	<p>... with your family life? ... with your personal income? ... with your professional situation? ... with your current living situation? ... with the childcare available?</p>	<p>1 2 3 4 5</p>			<p>... with your personal income? ... with your professional situation? ... with your current living situation? ... with the childcare available?</p>	<p>2 3 4 5</p>
Q13	<p><i>Completely dissatisfied (0) – Completely satisfied (10)</i></p> <p>How often have you felt negatively affected by the following complaints in the last two weeks?</p> <p>Little interest or pleasure in your activities? Low spirits, melancholy or hopelessness? Nervousness, anxiety or tension? Unable to stop or control worrying?</p> <p><i>1 Not at all – 2 On some days – 3 On more than half the days – 4 (Almost) every day</i></p>	<p>1 2 3 4</p>	PHQ-4 (see Scales Manual)	Q13	<p><i>Completely dissatisfied (0) – Completely satisfied (10)</i></p> <p>How often have you felt negatively affected by the following complaints in the last two weeks?</p> <p>Little interest or pleasure in your activities? Low spirits, melancholy or hopelessness? Nervousness, anxiety or tension? Unable to stop or control worrying?</p> <p><i>1 Not at all – 2 On some days – 3 On more than half the days – 4 (Almost) every day</i></p>	<p>1 2 3 4</p>
Q18	<p>How would you describe your current health?</p> <p><i>Very good 1 – Good 2 – Satisfactory 3 – Poor 4 – Bad 5</i></p>			Q87	<p>How would you describe your current health?</p> <p><i>Very good 1 – Good 2 – Satisfactory 3 – Poor 4 – Bad 5</i></p>	
Q15NE W	<p>How easy would you say it is to ...</p> <p>... find information on how to manage mental health problems like stress or depression? ... find out where to get professional help when you have mental health problems?</p> <p><i>1 very easy – 2 easy – 3 difficult – 4 very difficult</i></p>		Health Literacy Survey (HLS- EU)			
Q14	<p>Did you seek help for a personal or emotional problem from the following people in the past 6 months?</p> <p>a. Partner, wife, husband b. Friends or family c. Acquaintance d. Psychologist, psychotherapist, psychiatrist e. General practitioner f. Online psychological support (e.g. conversation or chat with psychologist)</p>	<p>1 2 3 4 5 6</p>	Past help seeking (from Deane et al 2001, General Help- Seeking Question naire)	Q14	<p>Did you seek help for a personal or emotional problem from the following people in the past 6 months?</p> <p>a. Partner, wife, husband b. Friends or family c. Acquaintance d. Psychologist, psychotherapist, psychiatrist e. General practitioner f. Online psychological support (e.g. conversation or chat with psychologist)</p>	<p>1 2 3 4 5 6</p>

	<i>1 Yes – 2 No – 3 Does not apply to me</i>				<i>Yes – No – Does not apply to me</i>	
Q16	The following statements may apply more or less to you personally. <i>Please indicate to what extent they apply to you.</i>		<u>Question to spot desirability bias tendency</u>			-
	In an argument, I always remain objective and stick to the facts.	1		-		
	Even if I am feeling stressed, I am always friendly and polite to others.	2		-		
	When talking to someone, I always listen carefully to what the other person says.	3		-		
	It has happened that I have taken advantage of someone in the past.	4		-		
	I have occasionally thrown litter away in the countryside or on to the road.	5		-		
	Sometimes I only help people if I expect to get something in return.	6		-		
	<i>doesn't apply at all (1) to applies completely (5)</i>			-		-
Pre-load 6= =1 2	In the following, we would like to show you a video on psychological support for refugees in Germany. Following the video the questionnaire continues with some additional questions.			-		-
	Video			-		-
	<i>PROG: Please put the following sentence on the same screen as the video, but under the video (with a bit of space between the video and the sentence)</i>			-		-
Help Pre-load 6= =1 2 & Land 1 m=1	If Preload 6=1 We understand that discussing psychotherapeutic or psychiatric treatment can be challenging. If you or a loved one need help or have questions, reach out to 0621-1703-3070. If Preload 6=2			-		-

	We understand that discussing psychotherapeutic or psychiatric treatment can be challenging. If you or a loved one need help or have questions, reach out to 0621-1703-4080.				
B003 Preload 6=1 2	The confidentiality of your request is guaranteed by the German law. There is no additional charge for this service beyond standard German fixed network rates. We encourage you to note down this number now. The hotline operating hours are from Monday to Friday (excluding public holidays), 11:00 am to 3pm In the video we just showed you, one of the issues discussed was help for people with mental health problems. In the following we are now interested in your opinions on this matter.	UKR W3			
Q19	What would deter you from seeking help for a mental health problem from a professional in [if Land_Int=1: Germany] [if Land_Int=2: Ukraine] [if Land_Int=3: the country you are living in]? <i>Please indicate how important the following reasons are for you.</i>	Perceived barriers to help seeking (adapted from Sainsky et al. 2019)	Q19	What would deter you from seeking help for a mental health problem from a professional in [if Land_Int=1: Germany] [if Land_Int=2: Ukraine] [if Land_Int=3: the country you are living in]? <i>Please indicate how important the following reasons are for you.</i>	
	Anxiety of lack of confidentiality Lack of knowledge of the availability of the service Fear of being judged by others [if Land_Int=2] Language barrier The cost of the treatment No time resources to look for a specialist [if Land_Int=1] Distrust for the German medical system Distrust of mental health professional [if Land_Int=2] Preference for help from Ukrainian mental health professionals remotely rather than in the [if Land_Int=1: German] [if Land_Int=3: local] medical system			Anxiety of lack of confidentiality Lack of knowledge of the availability of the service Fear of being judged by others [if Land_Int=2] Language barrier The cost of the treatment No time resources to look for a specialist [if Land_Int=1] Distrust for the German medical system Distrust of mental health professional [if Land_Int=2] Preference for help from Ukrainian mental health professionals remotely rather than in the [if Land_Int=1: German] [if Land_Int=3: local] medical system	1 2 3 4 5 6 7 8 9
	<i>Not important at all (1) to Very important (4)</i>			<i>Not important at all (1) to Very important (4)</i>	

Q110	<p>The following statements may apply more or less to you personally. <i>Please indicate to what extent they apply to you.</i></p> <p>To have a mental health problem is a sign of weakness. To seek help for a mental health problem is a sign of weakness. I would feel ashamed if I had a mental health problem I would feel ashamed to seek help for a mental health problem</p> <p><i>Not at all (1) to Very much (7)</i></p>	<p>Short questions on attitudes to MH and help seeking (from previous studies by Nicolas Risch)</p>			
Q111	<p>People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean to them. <i>Please rate the degree to which each of the following statements describes how you might react in this situation.</i></p> <p>I would feel inadequate if I went to a therapist for psychological help. My self-confidence would <u>not</u> be threatened if I sought professional help. Seeking psychological help would make me feel less intelligent. My self-esteem would increase if I talked to a therapist. My view of myself would not change just because I made the choice to see a therapist. It would make me feel inferior to ask a therapist for help. I would feel okay about myself if I made the choice to seek professional help. If I went to a therapist, I would be less satisfied with myself. My self-confidence would remain the same if I sought professional help for a problem I could not solve. I would feel worse about myself if I could not solve my own problems.</p>	<p>Self-stigma related to help seeking (10-item Self-Stigma of Seeking Help Scale (Vogel et al. 2006)</p>		<p>Q111</p> <p>People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean to them. <i>Please rate the degree to which each of the following statements describes how you might react in this situation.</i></p> <p>I would feel inadequate if I went to a therapist for psychological help. My self-confidence would <u>not</u> be threatened if I sought professional help. Seeking psychological help would make me feel less intelligent. My self-esteem would increase if I talked to a therapist. My view of myself would not change just because I made the choice to see a therapist. It would make me feel inferior to ask a therapist for help. I would feel okay about myself if I made the choice to seek professional help. If I went to a therapist, I would be less satisfied with myself. My self-confidence would remain the same if I sought professional help for a problem I could not solve. I would feel worse about myself if I could not solve my own problems.</p>	<p>1 2 3 4 5 6 7 8 9 10</p>

	<i>1 Strongly Disagree – 2 Disagree – 3 Agree & Disagree Equally – 4 Agree – 5 Strongly Agree</i>				<i>1 Strongly Disagree – 2 Disagree – 3 Agree & Disagree Equally – 4 Agree – 5 Strongly Agree</i>	
Q112	How likely is it that you would seek help from each of these people for a personal or emotional problem over the next four weeks? Partner, wife, husband Friends or family Acquaintance Psychologist, psychotherapist, psychiatrist General practitioner Online psychological support (e.g. conversation or chat with psychologists) I would not seek help from anybody. <i>extremely unlikely (1) to extremely likely (7) & does not apply to me at all (8)</i>	1 2 3 4 5 6 7	Help-seeking intentions (from Deane et al. 2001, General Help-Seeking Questionnaire and the Actual Help-Seeking Questionnaire)			
Q113a	Can you think of some of your relatives or Ukrainian friends living in Germany who would benefit from some mental health support (psychologist, general practitioner, online psychological support, etc.)? Yes (1) – No (2)		Intention to reach out to other refugees that need help	Q113a	Can you think of some of your relatives or Ukrainian friends living in Germany who would benefit from some mental health support (psychologist, general practitioner, online psychological support, etc.)? Yes (1) – No (2)	
Q113b	How many?			Q113b	How many?	
Q113a = 1	—			Q113a = 1	—	
Q113c Q113a = 1	How likely is it that you would reach out to them to recommend them to seek help? <i>Not at all (1) to Very much (7)</i>			Q113c Q113a = 1	How likely is it that you would reach out to them to recommend them to seek help? <i>Not at all (1) to Very much (7)</i>	
Q114	The following statements ask about views in relation to people who have mental health problems (for example, people seen by healthcare staff). In the future, I would be willing to live with someone with a mental health problem.	1 2	Attitudes vis-a-vis mental health (following Quirk et al. 2021).	Q114	The following statements ask about views in relation to people who have mental health problems (for example, people seen by healthcare staff). In the future, I would be willing to live with someone with a mental health problem.	1 2

	In the future, I would be willing to work with someone with a mental health problem. In the future, I would be willing to live nearby to someone with a mental health problem. In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.	3 4	using the Reported and Intended Behaviour Scale (RIBS) – Intended behaviour items)			In the future, I would be willing to work with someone with a mental health problem. In the future, I would be willing to live nearby to someone with a mental health problem. In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.	3 4
B004	<i>Strongly disagree (1) to Strongly agree (5)</i> At the end of this survey, we would like to come back to the video that we have shown you, since we are very interested in improving the information that we provide and the way how we provided it.					<i>Strongly disagree (1) to Strongly agree (5)</i>	-
Preload 6=1 2							
Q115	Following, we have a few questions regarding the video you just watched. How much do you agree with the following statements? The video caught my attention. The video provided new information. The video provided useful information. I would like to forward the videos to friends or relatives to whom I feel it could be useful.	1 2 3 4 5	Questions on the video (adapted from Nickerson et al. 2019, Questions on program usability)				-
Q120	<i>Strongly disagree (1) to Strongly agree (5)</i> We would like to ask you about your overall satisfaction with your life. How satisfied, all things considered, are you with your life at present?		UKR W2				-
Q117	<i>Not satisfied at all (0) to Completely satisfied (10)</i> Related to help and support for Ukrainian refugees, do you know the following website “https://www.germany4ukraine.de” from the German Government?						-
Q118	<i>Yes (1) – No (2)</i> Have you ever been on this website?						

Q117 = 1	Yes (1) – No (2)					
Q119	Do you find the information by this website useful?					
Q118 = 1	<i>Not useful at all (1) to Very useful (5)</i>					
Endpage	We have now reached the end of the survey. Thank you very much for your support!					
	If Preload_6=1 & Land_Int=1 If you need any assistance regarding mental health services in Germany do not hesitate to call our hotline on 0621-1703-3070.					
	If Preload_6=2 & Land_Int=1 If you need any assistance regarding mental health services in Germany do not hesitate to call our hotline on 0621-1703-4080.					
	For the success of this study, it is important that we can reach you again. We therefore ask you to notify us of any changes in your contact information. To complete this year's survey and go to the address update, please click on the button "Complete survey". You will then no longer be able to return to the survey.					
Address-tool	Please fill in the following fields as completely as possible and in Latin letters. Of course, all information is voluntary. In order for us to be able to contact you in the future as simple and easy as possible, please also enter an e-mail address and telephone number. Please enter your first and last name in Latin letters exactly as they appear on your residence title. <i>PROG: Please display the passage written above for the first and last name both above the first and last name</i>					

<p><i>and as an error message text as soon as a person tries to enter Cyrillic information.</i></p>						
---	--	--	--	--	--	--

First name
Last name
E-mail address
Telephone area code
Phone number
Street and house number
POSTCODE
City
Country

A.3 Hotline survey in within-survey experiment

MODULE 4: SHORT SURVEY (“Questionnaire 3”)

This survey will only be made with callers who called the hotline to make an appointment with a psychotherapist or psychiatrist in Germany. The survey is done in Ukrainian.

[Filled out by the enumerator before the call/at the beginning of the call]			
Q1	Record ID – in Questionnaire 1/ 2 <hr/> <i>*must provide value</i>		
Q2	Survey participants could be reached for follow-up? [Note to the enumerator: Please try to reach the person several times and only enter here that the person could not be reached if you have not reached the person after several attempts] Yes No	1 0	
Part A - Open Questions			
Introduction			
<p>Hello, my name is XXXX, and I am calling from the Ukraine-Psychological Help Hotline. You previously contacted us to make an appointment with a psychotherapist or psychiatrist in Germany. We are conducting a follow-up as part of a larger German research project. We would like to ask you some questions about your experience and whether you were able to make an appointment and are currently receiving psychotherapeutic or psychiatric treatment. This should take approximately five minutes.</p> <p><i>Доброго дня, мене звати XXXX і я телефоную з гарячої лінії < Україна-Психологічна допомога >. Раніше ви зверталися до нас, щоб записатися на прийом до психотерапевта або психіатра в Німеччині. Ми проводимо подальші дослідження в рамках більшого німецького дослідницького проекту й хотіли б поставити вам кілька запитань - про ваш досвід і про те, чи змогли ви записатися на прийом і чи проходите зараз психотерапевтичне або психіатричне лікування. Це займе приблизно п'ять хвилин.</i></p>			
Some open questions to start the conversation			
A1	Just to make sure we have already spoken to you; did you call the Ukraine-Psychological Help hotline before? Просто щоб переконатися, що ми вже говорили з вами; Ви раніше телефонували на гарячу лінію "Україна-Психологічна допомога"? Yes No [Note to the enumerator: If no, the survey ends!]		
A2	What was your experience with the hotline? Яким був ваш досвід роботи з гарячою лінією?		
A3	Why is the hotline useful? Чому гаряча лінія корисна?		
A4	What is lacking? Чого не вистачає?		

Part B - Follow up for research purposes

[Note to the enumerator: Please do not read out loud the answer options to these questions. Once the respondent has provided an answer, please indicate in the corresponding answer from the answer options.]

B1	<p>Can we ask you a few questions for research purposes? Чи можемо ми поставити вам кілька запитань для дослідницьких цілей?</p> <p>Yes No</p> <p>[Note to the enumerator: If no, the survey ends!] <i>*must provide value</i></p>	1 0	
B2	<p>During the last 4 weeks, have you made an appointment with a psychotherapist or psychiatrist? Протягом останніх 4 тижнів чи записувалися ви на прийом до психотерапевта чи психіатра?</p> <p>Yes No Prefer not to say</p> <p><i>*must provide value</i></p>	1 0 99	
B3 (only if B2=="No")	<p>Why haven't you made an appointment? No time No interest No more need Contact info provided was not useful Long waiting times Other Prefer not to say</p> <p><i>*must provide value</i></p> <p>Чому не призначили термін? Немає часу Жодного інтересу Більше не потрібно Надана контактна інформація не була корисною Тривалий час очікування Інше Не хочу говорити</p>	1 2 3 4 5 6 99	
B3_1 (only if B3=="Other")	<p>Other please specify <i>*must provide value</i> Інше (будь ласка, вкажіть)</p>		
B4 (only if B2=="Yes")	<p>Did we provide you with the contact details? Чи надали ми вам контактні дані?</p> <p>Yes No Prefer not to say</p> <p><i>*must provide value</i></p>	1 0 99	
B5 (only if B4=="No")	<p>How did you get the contact details? Family/friends Internet search</p>	1 2	

	<p>Health insurance Patient service 116/117 GP Other Prefer not to say</p> <p><i>*must provide value</i></p> <p>Як ви отримали контактні дані? Сім'я/друзі Пошук в Інтернеті Медична страховка Пацієнтська служба 116/117 Сімейний лікар Інше Не хочу говорити</p>	<p>3 4 5 6 99</p> <p>1 2 3 4 5 6 99</p>	
<p>B5_1 (only if B5=="Other ")</p>	<p>Other please specify Інше (будь ласка, вкажіть)</p> <p><i>*must provide value</i></p>		
<p>B6 (only if B2=="Yes")</p>	<p>Have you already had your appointment? Ви вже записалися на прийом?</p> <p>Yes No Prefer not to say</p> <p><i>*must provide value</i></p>	<p>1 0 99</p>	
<p>B7</p>	<p>Were you already looking for psychological help before watching the video and calling the Ukraine-Psychological Help Hotline? Чи шукали ви психологічної допомоги до того, як переглянули відео та зателефонували на гарячу лінію "Україна-Психологічна допомога"?</p> <p>Yes No Prefer not to say</p> <p><i>*must provide value</i></p>	<p>1 0 99</p>	
<p>B8</p>	<p>During the last 4 weeks, have you started psychotherapy or psychiatric treatment? Протягом останніх 4 тижнів чи починали ви психотерапію або будь-яку іншу терапію для психічного здоров'я лікування?</p> <p>Yes No Prefer not to say</p> <p><i>*must provide value</i></p>	<p>1 0 99</p>	

We have now reached the end of this short survey. Thank you very much for your support! Let me remind you that if you don't want the answers to these Questions to be used for research, you can let me know now or call the hotline again.

Ми підійшли до кінця цього короткого опитування. Дуже дякую за вашу підтримку! Дозвольте нагадати вам, що якщо ви не хочете, щоб відповіді на ці запитання використовувалися для дослідження, ви можете повідомити зараз або знову зателефонувати на гарячу лінію.

A.4 Hotline survey in social media experiment

Hotline data collection

MODULE 1: PARA DATA

The following para data is collected in an automatic way

- *number of incoming calls by hotline number*
- *#calls in absence*
- *#calls that reach the hotline*
- *duration of call*
- *date of the call*

MODULE 2: HOTLINE ORIENTATION (“Questionnaire 1”)

The interviewer assesses patient’s needs and contacts, and sets appointment if needed and available, or calls back later with options.

All data collected at that stage is for medical follow-up and will not be used for research purposes. The hotline call is in Ukrainian.

MODULE 3: SHORT SURVEY (“Questionnaire 2”)

The survey is done in Ukrainian.

Enumerator: Reminder: Please refresh this link at the beginning of the call.
And fill out this questionnaire for the caller.

Introduction and informed consent

We are trying to improve this service as part of is part of a larger research project with German hospitals that looks at ways to assess and improve services for Ukrainian refugees. We would like to record the age, gender, location, help-seeking behavior, and main symptoms of people who called this Depsy hotline, and how they learned about it. You will have the opportunity to get a preliminary diagnosis of anxiety, depression, or PTSD.

This will take fifteen minutes. We will only use this information for research in a fully anonymous way. Your participation is completely voluntary, but your responses will help us better serve patients. You can stop and disagree with the use of your answers at any point.

A1

Enumerator: Which number is the caller calling from or do you call the person back??

3065 1

4065 2

3075 3

4075 4

3085 5

4085 6

3095 7

4095 8

3090 9

4090 10

Call back 11

A2 [If A1=="Call back"]

Enumerator: If you call study participants back enter the study ID from the dashboard

A3 [If A1=="Call back"]

Enumerator: If you call study participants back and cannot reach them after ten attempts fill in here that the person could not be reached

Person could not be reached 1 → survey stops!

A4

Do you agree to participate?

Enumerators: without being pushy, please probe if a person does not wish to participate.

We would really appreciate your help. Our survey needs everyone to be represented. But we will of course respect your decision. If you want, I may call you back at another time."

Yes 1

No 0 → survey stops!

No, not now call back at another time 2 → Q15 → survey stops!

Automatic data collection			
<ul style="list-style-type: none"> Record ID Survey Timestamp 			
Q0	<p>Enumerator: Is the caller calling for hotline purposes or other purposes? You can go quickly through the survey if the caller is calling for other purposes.</p> <p>Yes, for hotline purpose No, for other purposes</p>	<p>1 0</p>	* must provide value

Q1	<p>Enumerator: Fill in the gender of the caller</p> <p>Male Female Diverse (if you know)</p>	1 2	* must provide value
Q2	<p>Could you tell me your age or age category?</p> <p>Under 18 18-24 25-34 35-44 45-54 55-64 65 and above Prefers not to answer</p>	1 2 3 4 5 6 7 99	* must provide value
Q3	<p>In which German city do you live (or which city is nearby)? Enumerator: If the person is not located in Germany type "N/A"</p>		* must provide value
Q4	<p>How did you get the Depsy hotline phone number?</p> <p>On a Telegram bot Someone shared the phone number directly with me I saw the phone number posted on social media Other Prefers not to answer</p>	1 2 3 4 99	* must provide value
Q4_1	Other please specify		
Q5 [If Q4=="1"]	<p>How did you get to the Depsy Telegram bot (first)?</p> <p>I received the link from a friend I received the link from a family member I saw the link on social media I saw the link on posters or flyers Other Prefers not to answer</p>	1 2 3 4 5 99	* must provide value
Q5_1	Other please specify		
Q6	<p>Is this your first attempt to call the Depsy hotline?</p> <p>Yes No Prefers not to answer</p>	1 0 99	* must provide value
Q7 [If Q6=="No"]	<p>How many times have you tried to call before?</p> <p>_____</p>		* must provide value

Q8	Have you received mental health support in the past 2 months? Yes No Prefers not to answer	1 0 99	* must provide value
Q9	Are you currently receiving mental health support? Yes No Prefers not to answer	1 0 99	* must provide value
Q9_1 [If Q9="Yes"]	What support are you getting? Therapy/treatment in private practice in Germany Therapy/treatment in German hospital Online psychological support based in Germany Online psychological support based in Ukraine Psychological support in psychosocial center Support from family or friends. 1 Yes – 2 No – 99 Prefers not to answer	1 2 3 4 5 6	* must provide value
Q9_2 [If Q9="No"]	Have you tried to get treatment / support since you arrived in Germany? Yes, but could not find adequate treatment Yes, but stopped since then No Prefers not to answer	1 2 0 99	* must provide value
Q10	Have you received mental health treatment /support in Ukraine before the war? Yes No Prefers not to answer	1 0 99	* must provide value
Q11	How satisfied are you currently with the following areas of your life? How satisfied are you with your family life? ... with your personal income? ... with your professional situation? ... with your current living situation? ... with the childcare available? Please answer on a scale from 0 to 10, where 0 means completely dissatisfied and 10 means completely satisfied	1 2 3 4 5	Soep Core * must provide value

	<i>0 Completely dissatisfied – 10 Completely satisfied, – 99 Prefers not to answer</i>		
I will now ask you a question on anxiety, depression, and PTSD. You will have the opportunity to get a preliminary diagnosis of anxiety, depression, or PTSD. But please remember these questions are self-assessment instruments for measuring depression, anxiety, and PTSD and need to be verified by a professional.			
Q12	<p>How often have you felt negatively affected by the following complaints in the last two weeks?</p> <p>Little interest or pleasure in your activities? Low spirits, melancholy or hopelessness? Nervousness, anxiety or tension? Unable to stop or control worrying?</p> <p><i>0 Not at all – 1 On some days – 2 On more than half the days – 3 (Almost) every day 99- Prefers not to answer</i></p>	<p>1 2 3 4</p>	<p>PHQ-4 (see Scales Manual; p.30, but using the official scales 0-3)</p> <p>* must provide value</p>
	<p>Calculation PHQ-4: Total score is determined by adding together the scores of each of the 4 items. Scores are rated as normal (0-2), mild (3-5), moderate (6-8), and severe (9-12). If someone chooses "prefer not to say" in one of the four questions no score will be calculated.</p>		
	<p>Calculation anxiety: Total score ≥ 3 for first 2 questions suggests anxiety If someone chooses "prefer not to say" in one of the two questions no score will be calculated.</p>		
	<p>Calculation depression: Total score ≥ 3 for last 2 questions suggests depression. If someone chooses "prefer not to say" in one of the two questions no score will be calculated.</p>		
Q13	<p>In the past month, how much were you bothered by:</p> <ol style="list-style-type: none"> 1. Repeated, disturbing, and unwanted memories of the stressful experience? 2. Repeated, disturbing dreams of the stressful experience? 3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)? 4. Feeling very upset when something reminded you of the stressful experience? 5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)? 		<p>PCL-5</p> <p>* must provide value</p>

	<p>6. Avoiding memories, thoughts, or feelings related to the stressful experience?</p> <p>7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?</p> <p>8. Trouble remembering important parts of the stressful experience?</p> <p>9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?</p> <p>10. Blaming yourself or someone else for the stressful experience or what happened after it?</p> <p>11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?</p> <p>12. Loss of interest in activities that you used to enjoy?</p> <p>13. Feeling distant or cut off from other people?</p> <p>14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?</p> <p>15. Irritable behavior, angry outbursts, or acting aggressively?</p> <p>16. Taking too many risks or doing things that could cause you harm?</p> <p>17. Being “superalert” or watchful or on guard?</p> <p>18. Feeling jumpy or easily startled?</p> <p>19. Having difficulty concentrating?</p> <p>20. Trouble falling or staying asleep?</p> <p><i>0 Not at all - 1 A little bit - 2 Moderately - 3 Quite a bit - 4 Extremely – 99 Prefers not to answer</i></p>		
	<p>Calculation PTSD: Summing all 20 items (range 0-80) and using a cut-point score of 31-33 appears to be reasonable based upon current psychometric work If someone chooses "prefer not to say" in one of the two questions no score will be calculated.</p>		
<p>Enumerators: Offer to share the PTSD, depression and anxiety results with the study participant, but these are only preliminary results and need to be verified by a professional.</p>			
<p>Q14</p>	<p>To ensure comprehensive insights, we aim to enhance the questionnaire data with tracking information from the Depsy bot, including button clicks and video viewing activity. Do you agree that we can combine this data with the tracking data? Yes No</p>	<p>1 0</p>	<p>* must provide value</p>
<p>Q15</p>	<p>Would you be willing to let us reach out to you again in a few weeks for a brief follow-up interview regarding your experience with the Depsy hotline and whether you were able to schedule an appointment? Yes</p>	<p>1</p>	<p>* must provide value</p>

	No	0	
Q16 [If Q15=1 A4==2]]	What is the best number to contact you on?		* must provide value

We have now reached the end of this short survey. Thank you very much for your support!

A.5 Baseline and endline survey in social media experiment

Endline survey of Telegram users
Online survey (filled out by telegram users outside of Telegram)

Introduction and informed consent

We are conducting a research study as part of a project with German hospitals that try to improve mental health support to Ukrainian refugees. We would like to ask you a few questions about your situation and your well-being. You will have the opportunity to get a preliminary diagnosis of anxiety, depression, or PTSD. This should take about ten minutes of your time.

Your participation in this study is completely voluntary. You can choose to stop participating at any time, and you can choose not to answer any specific questions. Your responses will be kept confidential and will be used for research purposes only.

There may be no direct benefit to you from participating in this study. However, your responses will help us better understand how to serve people from Ukraine. If you have any questions about the study, you can write an e-mail to ukraine-hotline@zi-mannheim.de.

Do you agree to participate in this study?

Yes 1

No 0 → Survey stops!

Automatic data collection				
<ul style="list-style-type: none"> Record ID Survey Timestamp Study (Telegram) ID prefill through survey link 				
Socio-demographic information				
We would like to start with some questions about your background.				
E1	What is your gender?		* must provide value	Hotline Questionnaire 2 (research)
	Male	1		
	Female	2		
	Diverse	3		
	Prefers not to answer	99		
E2	Could you tell me your age category?		* must provide value	Hotline Questionnaire 2 (research)
	Under 18	1		
	18-24	2		
	25-34	3		
	35-44	4		
	45-54	5		
	55-64	6		
	65 and above	7		
	Prefers not to answer	99		
We will now proceed with some questions about your feelings, well-being as well as some general attitudes.				

E3	<p>How satisfied are you currently with the following areas of your life?</p> <p>How satisfied are you ...</p> <p>... with your family life?</p> <p>... with your personal income?</p> <p>... with your professional situation?</p> <p>... with your current living situation?</p> <p>... with the childcare available?</p> <p>Please answer on a scale from 0 to 10, where 0 means completely dissatisfied and 10 means completely satisfied</p> <p><i>0 Completely dissatisfied – 10 Completely satisfied, – 99 Prefers not to answer</i></p>	1 2 3 4 5	Soep Core * must provide value	BIB W4
E4	<p>Are you currently receiving mental health support from the following people?</p> <p>a. Psychologist, psychotherapist, psychiatrist</p> <p>b. General practitioner</p> <p>c. Online psychological support (e.g. conversation or chat with psychologist)</p> <p><i>1 Yes – 2 No – 3 Does not apply to me – 99 Prefers not to answer</i></p>	1 2 3	* must provide value	
E5	<p>How often have you felt negatively affected by the following complaints in the last two weeks?</p> <p>Little interest or pleasure in your activities?</p> <p>Low spirits, melancholy or hopelessness?</p> <p>Nervousness, anxiety or tension?</p> <p>Unable to stop or control worrying?</p> <p><i>0 Not at all – 1 On some days – 2 On more than half the days – 3 (Almost) every day 99- Prefers not to answer</i></p>	1 2 3 4	PHQ-4 (see Scales Manual ; p.30, but using the official scales 0-3) * must provide value	BIB W4
E6	<p>In the past month, how much were you bothered by:</p> <p>Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)? (3)</p> <p>Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)? (7)</p> <p>Feeling distant or cut off from other people? (13)</p> <p>Irritable behavior, angry outbursts, or acting aggressively? (15)</p>	1 2 3 4	Short Version PTSD: DSM-5 (PCL-5) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6736721/#SD1 * must provide value	

	0 Not at all - 1 A little bit - 2 Moderately - 3 Quite a bit - 4 Extremely – 99 Prefers not to answer			
If baseline online survey:				
Here is your preliminary diagnosis of anxiety, depression, and PTSD. The higher your score, the more likely you have been diagnosed with the illness and the more important it is that you consult a specialist. But please remember these questions are self-assessment instruments for measuring depression, anxiety, and PTSD and need to be verified by a professional in any case.				
	<p>Calculation PHQ-4: Total score is determined by adding together the scores of each of the 4 items. Scores are rated as normal (0-2), mild (3-5), moderate (6-8), and severe (9-12). If you choose "prefer not to say" in one of the four questions no score will be calculated.</p>			
	<p>Calculation anxiety: Total score ≥ 3 for first 2 questions suggests anxiety If you choose "prefer not to say" in one of the two questions no score will be calculated.</p>			
	<p>Calculation depression: Total score ≥ 3 for last 2 questions suggests depression. If you choose "prefer not to say" in one of the two questions no score will be calculated.</p>			
	<p>Calculation PTSD: Summing all 4 items (range 0-16) and using a cut-point score of > 6 appears to be reasonable based upon current psychometric work. If you choose "prefer not to say" in one of the two questions no score will be calculated.</p>			
End of baseline online survey				
The endline online survey continues with the following questions ...				
E7	In which German city do you live? _____		* must provide value	
E8	Which region in Ukraine are you from? Kyjiv North Centre East South Prefers not to answer	1 2 3 4 5 99	* must provide value	
E9	What is your current marital or partnership status? Single, never married Married In a domestic partnership or civil union Divorced	1 2 3 4	* must provide value	

	Widowed Separated Prefer not to answer	5 6 99		
E10 (only if E9==2 3)	Is your partner with you in Germany? Yes, in Germany No, abroad No, missing Prefer not to answer	1 2 3 99	* must provide value	
E11	Do you have children? No child 1 child 2 children 3 children or more Prefers not to answer	1 2 3 4 99	* must provide value	
E12 (only if E11==2 3 4)	Is your child or are at least some of your children with you in Germany? Yes, in Germany No, abroad No, missing Prefer not to answer	1 2 3 99	* must provide value	
E13	How would you describe your current health? Very good Good Satisfactory Poor Bad Prefer not to answer	1 2 3 4 5 99	* must provide value	BIB W4
E14	Did you seek help for a personal or emotional problem from the following people in the past 2 months? a. Partner, wife, husband b. Friends or family c. Acquaintance d. Psychologist, psychotherapist, psychiatrist e. General practitioner f. Online psychological support (e.g. conversation or chat with psychologist) <i>1 Yes – 2 No – 3 Does not apply to me – 99 Prefers not to answer</i>	1 2 3 4 5 6	Past help seeking (from Deane et al. 2001, General Help-Seeking Questionnaire) * must provide value	BIB W4
E15 (only if E14==)	Did we provide you with the contact details? Yes No Prefers not to answer	1 0 99	* must provide value	Hotline Questionnaire 3

”d,e,f”)				(research)
E16	<p>What would deter you from seeking help for a mental health problem from a professional in Germany? Please indicate how important the following reasons are for you.</p> <p>Anxiety of lack of confidentiality Lack of knowledge of the availability of the service Fear of being judged by others Language barrier The cost of the treatment No time resources to look for a specialist Distrust for the German medical system Distrust of mental health professional Preference for help from Ukrainian mental health professionals remotely rather than in the German medical system</p> <p><i>Not important at all (1) to Very important (4), 99- Prefers not to answer</i></p>	<p>1 2 3 4 5 6 7 8 9</p>	<p>Perceived barriers to help seeking (adapted from Satinsky et al. 2019)</p> <p>* must provide value</p>	BIB W4
E17	<p>People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean to them. Please rate the degree to which each of the following statements describes how you might react in this situation.</p> <p>I would feel inadequate if I went to a therapist for psychological help. My self-confidence would not be threatened if I sought professional help. Seeking psychological help would make me feel less intelligent. My self-esteem would increase if I talked to a therapist. My view of myself would not change just because I made the choice to see a therapist. It would make me feel inferior to ask a therapist for help. I would feel okay about myself if I made the choice to seek professional help. If I went to a therapist, I would be less satisfied with myself. My self-confidence would remain the same if I sought professional help for a problem I could not solve. I would feel worse about myself if I could not solve my own problems.</p> <p><i>1 Strongly Disagree – 2 Disagree – 3 Agree & Disagree Equally – 4 Agree – 5 Strongly Agree - 99- Prefers not to answer</i></p>	<p>1 2 3 4 5 6 7 8 9 10</p>	<p>Self-stigma related to help seeking (10-item Self-Stigma of Seeking Help Scale (Vogel et al. 2006)</p> <p>* must provide value</p>	BIB W4

E18	<p>The following statements ask about views in relation to people who have mental health problems (for example, people seen by healthcare staff).</p> <p>In the future, I would be willing to live with someone with a mental health problem.</p> <p>In the future, I would be willing to work with someone with a mental health problem.</p> <p>In the future, I would be willing to live nearby to someone with a mental health problem.</p> <p>In the future, I would be willing to continue a relationship with a friend who developed a mental health problem.</p> <p><i>1- Strongly disagree to 5- Strongly agree , 99- Prefers not to answer</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p>	<p>Attitudes vis-à-vis mental health (following Quirke et al. 2021)</p> <p>* must provide value</p>	BIB W4
At the end of this survey, we would like to ask you some question on our services.				
E19	<p>Did you watch a video on the Depsy Bot ?</p> <p>Yes</p> <p>No</p> <p>Prefer not to say</p>	<p>1</p> <p>0</p> <p>99</p>	<p>* must provide value</p>	
E20 (only if E19=="Yes")	<p>How much do you agree with the following statements?</p> <p>The video caught my attention.</p> <p>The video provided new information.</p> <p>The video provided useful information.</p> <p>I would like to forward the videos to friends or relatives to whom I feel it could be useful.</p> <p><i>1- Strongly disagree to 5- Strongly agree , 99- Prefers not to answer</i></p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p>	<p>Reactions to the video</p> <p>* must provide value</p>	BIB Baseline
E21	<p>Did you call the Depsy hotline mentioned on the Depsy Bot?</p> <p>Yes</p> <p>No</p> <p>Prefer not to say</p>	<p>1</p> <p>0</p> <p>99</p>	<p>whether they called the hotline</p> <p>* must provide value</p>	
E22 (only if E21=="Yes")	<p>Do you find the information provided by the hotline useful?</p> <p>Yes</p> <p>No</p> <p>Prefer not to say</p>	<p>1</p> <p>0</p> <p>99</p>	<p>* must provide value</p>	
E23	<p>Were you already looking for psychological help before using the Depsy Bot and calling the Depsy Hotline?</p> <p>Yes</p> <p>No</p> <p>Prefer not to say</p>	<p>1</p> <p>0</p> <p>99</p>	<p>* must provide value</p>	Hotline Questionnaire 3 (research)
E24	<p>Would you like to make any comment on the service we are providing, and more generally on your needs?</p>			

	<Free text space>			
E25	To ensure comprehensive insights, we aim to enhance the questionnaire data with tracking information from the Depsy bot, including button clicks and video viewing activity. Do you agree that we can combine this data with the tracking data? Yes No	1 0	* must provide value	

If endline online survey:

Here is your preliminary diagnosis of anxiety, depression, or PTSD. The higher your score, the more likely you have been diagnosed with the illness and the more important it is that you consult a specialist. But please remember these questions are self-assessment instruments for measuring depression, anxiety, and PTSD and need to be verified by a professional.

	Calculation PHQ-4: Total score is determined by adding together the scores of each of the 4 items. Scores are rated as normal (0-2), mild (3-5), moderate (6-8), and severe (9-12). If you choose "prefer not to say" in one of the four questions no score will be calculated.			
	Calculation anxiety: Total score ≥ 3 for first 2 questions suggests anxiety If you choose "prefer not to say" in one of the two questions no score will be calculated.			
	Calculation depression: Total score ≥ 3 for last 2 questions suggests depression. If you choose "prefer not to say" in one of the two questions no score will be calculated.			
	Calculation PTSD: Summing all 4 items (range 0-16) and using a cut-point score of > 6 appears to be reasonable based upon current psychometric work. If you choose "prefer not to say" in one of the two questions no score will be calculated.			

End of endline online survey

We have now reached the end of this short survey. Thank you very much for your support!

Let me remind you that if you have any questions about this research you can write an e-mail to ukraine-hotline@zi-mannheim.de

B Script for Depsy bot

Script for experiment bot

Preliminary version : April 12, 2024

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Seed recruitment

Before bot:

Давайте ставати чуйними один до одного! (+our Logo)

... Ви можете допомогти зміцнити добробут української спільноти. Простий у використанні Telegram-бот Діпсі допоможе вам дізнатися, як це зробити. Буквально п'ять хвилин вашого часу можуть багато змінити на краще.

Натисніть тут, щоб дізнатися більше!

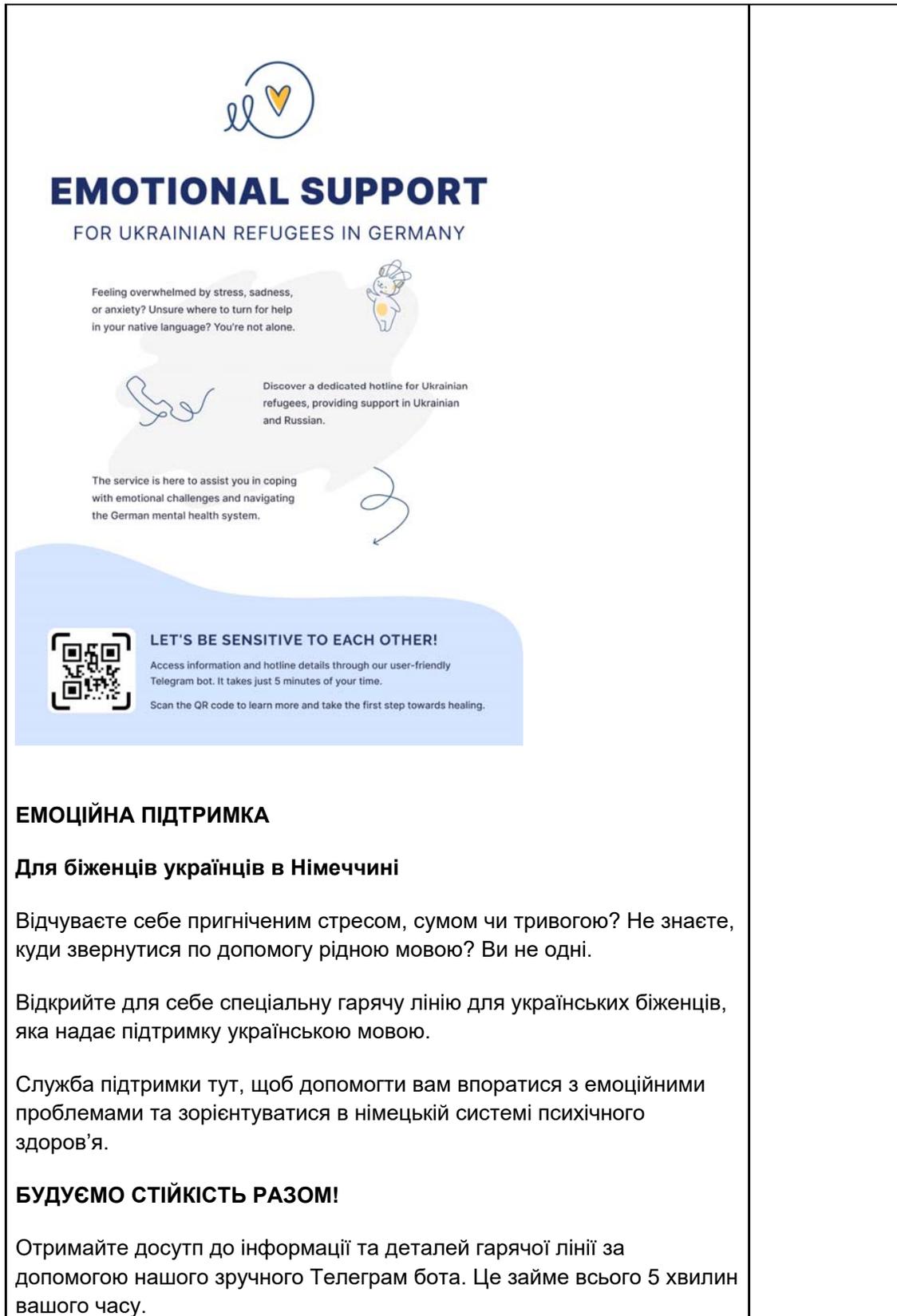
Let's be sensitive to each other! (+our Logo)

...You can help strengthen your well-being and the well-being of the Ukrainian community. This easy-to-use Telegram bot will help you know how. It is supported by a network of Ukrainian organizations, doctors, and psychotherapists in Germany. Just five minutes of your time can make a big difference.

If hyperlink [→](#) Click here to learn more! OR Click here to learn more! [→](#) link

If hyperlink [→](#) Click here to learn more! OR Click here to learn more! [→](#) link

At language center





EMOTIONAL SUPPORT

FOR UKRAINIAN REFUGEES IN GERMANY

Feeling overwhelmed by stress, sadness, or anxiety? Unsure where to turn for help in your native language? You're not alone.



Discover a dedicated hotline for Ukrainian refugees, providing support in Ukrainian and Russian.

The service is here to assist you in coping with emotional challenges and navigating the German mental health system.



LET'S BE SENSITIVE TO EACH OTHER!

Access information and hotline details through our user-friendly Telegram bot. It takes just 5 minutes of your time.

Scan the QR code to learn more and take the first step towards healing.

ЕМОЦІЙНА ПІДТРИМКА

Для біженців українців в Німеччині

Відчуваєте себе пригніченим стресом, сумом чи тривогою? Не знаєте, куди звернутися по допомогу рідною мовою? Ви не одні.

Відкрийте для себе спеціальну гарячу лінію для українських біженців, яка надає підтримку українською мовою.

Служба підтримки тут, щоб допомогти вам впоратися з емоційними проблемами та зорієнтуватися в німецькій системі психічного здоров'я.

БУДУЄМО СТІЙКІСТЬ РАЗОМ!

Отримайте доступ до інформації та деталей гарячої лінії за допомогою нашого зручного Телеграм бота. Це займе всього 5 хвилин вашого часу.

Відскануйте QR - код, щоб дізнатися більше та зробити перший крок до зцілення.	
--	--

In Bot: Landing page/ First page

Message bubble 1 (1):



Depsy : Приємно познайомитись!
Depsy: Hi, I am Depsy, nice to meet you!

Ти відчуваєш тривогу, стрес чи смуток? А може це відчуває хтось з твоїх близьких? Ви можете отримати підтримку! Спеціально для українців в Німеччині працює безкоштовна гаряча лінія українською мовою, щоб допомогти кожному з нас стати на шлях вирішення своїх емоційних проблем. Я була розроблена українськими медичними спеціалістами, бо ми віримо - тобі стане краще! Для твоєї зручності ми створили цей Telegram-бот за підтримки мережі українських організацій та лікарів фізіотерапевтів у Німеччині.

Do you feel anxious, stressed or down? Or maybe your close people feel that way? You can get support! Let me introduce a free hotline to you exclusively for Ukrainians in Germany that helps each of us get on the path to solving our emotional problems in the Ukrainian language. It was created by Ukrainian medical specialists because we believe - you can get better!

Message bubble 2 (2):

Доречі, бот розроблений разом із ZI Mannheim - міжнародною дослідницькою командою і був схвалений етичними комітетами Паризької школи економіки та

Массачусетського технологічного інституту. Тому ти можеш не перейматися за якість підтримки!

For your comfort, my research colleagues have created this Telegram bot to provide you with all the information and the good reasons you need to call the hotline. The bot was developed at ZI Mannheim by an international research team, and also was approved by ethical committees of the Paris School of Economics and MIT. You can be sure about the quality of the given support!

Message bubble 3 (3):

Але перед тим як ми продовжимо тобі потрібно надати згоду на обробку своїх персональних даних. Не хвилюйся, наш бот дотримується європейських стандартів захисту персональних даних. Тому наше спілкування захищено і конфіденційно, а твої дані у безпеці.

Якщо даєш згоду на обробку та зберігання персональних даних - натискай кнопку "Старт" і ми починаємо!

Before we continue, you need to give your consent to process and collect your personal data. Don't be worried, our bot follows European standards of personal data protection. That is why our communication is confidential and your personal data is completely safe. If you give your permission to process and collect your personal data click the button "Start"!

START button (= randomization)

First day D on bot

(for seed users and higher-order users)

Before video/text page

Message bubble 1 (4):

! The message is conditional on treatment received

(4a) Celebrity video

I'd like to share a video message with you, by famous people you surely know ;-). You'll see, they have a simple but important question: how are you? And how are your closed one? Then, on the same video, one of my friends will tell you about support to get and ways to act.

(4b) Patient video

I'd like to share a video message with you, by a lady, a Ukrainian refugee in Germany. That's her story, but it can resonate for many of us. Please watch it! Then, on the same video, one of my friends will tell you about support to get and ways to act.

(4c) Active treatment arm

I have simple but powerful information to share with you: you can get help in Ukrainian language to find about emotional support that is available to you in Germany.

Message bubble 2 (5):

Натисни кнопку щоб подивитися відео і дізнатися більше!

Click the button below to learn more!

Click here !

Video page

Either patient video or celebrity video

Placeholder Video; the screen that appears displays one of the celebrities (pianist?) or the patient

Message surrounding the video placeholder:

Patient video and and celebrity video have the exact same text + Depsy:

Привіт! Це знову я, Depsy - ваша помічниця у сфері психічного здоров'я

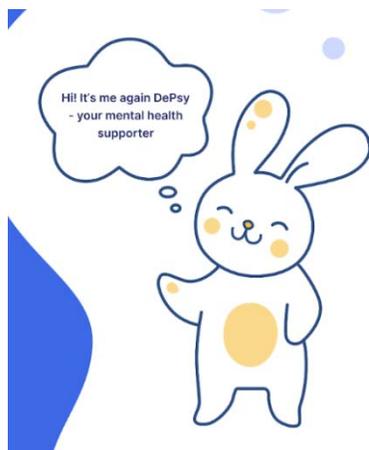
XXXX



Please watch the video above till the end. I am sure, watching the video is helpful for you, your loved ones, and your friends. As highlighted in the video, we have a very useful hotline. Let me just emphasise once again, our service is free of charge, in the Ukrainian language and all requests are confidential according to the German law.

You can contact us by clicking the buttons below.

Celebrity video:



Please watch the video above till the end. I am sure, watching the video is helpful for you, your loved ones, and your friends. As highlighted in the video, we have a very useful hotline. Let me just emphasise once again, our service is free of charge, in the Ukrainian language and all requests are confidential according to the German law.

You can contact us by clicking the buttons below.

⇒ **Two treatment arms: with each three buttons**

- A1: Share (button) + Call button + Be called button;
- A2: Share (button) + Call button + Remind me (button)

Share button[A1 and A2]:

Поділитися [бо ти піклуєшся]

Share [because you care]

Sends user to standard Telegram sharing interface (that offers you to tick contacts or groups suggesting those with whom you interacted recently; it then offers to search among your contacts; it last allows you to get a link to share that brings you back to Telegram when you click on it)

⇒ **The link is sent with a default message (which the user can change):**

Я щойно дізнався про ініціативу "Давай ставати чуйними один до одного", спрямовану на зміцнення добробуту нашої української спільноти. Це безкоштовна гаряча лінія українською, щоб допомогти нам боротися зі своїми емоційними проблемами. Ця лінія створена українськими медичними спеціалістами.

Вони також запустили зручний Telegram-бот який називається Діпсі, для легкого доступу. Він підтримується мережею українських організацій та лікарів фізіотерапевтів у Німеччині. Це займе лише 5 хвилин твого часу, натисни тут, щоб дізнатися більше!

I just learned about the initiative "Let's become sensitive to each other" aimed at strengthening the well-being of our Ukrainian community. There is a free hotline in Ukrainian to help each of us cope with our emotional problems. It was developed by Ukrainian medical specialists.

They have launched a convenient Telegram bot to provide you with all the information and the good reasons you need to call the hotline or with everything you need to help you and your loved ones. It is supported by a network of Ukrainian organizations, doctors, and psychotherapists in Germany. It will only take 5 minutes of your time, click here to learn more!

Call button with phone number[A1 and A2]:

Подзвони 00000000

Call 00000000

Be called button[A1 only]:

Будь ласка, передзвоніть мені!

Be called!

⇒ **Follow-up questions**

1/ Натисни тут щоб поділитися з нами твоїм номером.

1/ You requested to be contacted. Send us your phone number by clicking the button below and if you like, choose a day and time when we can reach you

2/ Хочеш щоб ми зателефонували тобі в конкретний день? Опції: сьогодні, завтра, післязавтра

2/ Do you want to be called on a specific day?" Options: today, tomorrow, the day after tomorrow

3/ Time slots

⇒ **Follow-up information:**

номер який зателефонує тобі: XXXX чи XXXX, можливо ти захочеш одразу додати його у свої контакти.

The phone number calling you will be: XXXX or XXXX, maybe you want to keep it in your contact to recognize it.

Remind me button [A2 only]:

Нагадайте мені пізніше

Remind me later

[If pressed Remind me later]

1/ Prompt: Ми надішлемо тобі нагадування, що гаряча лінія відкривається в понеділок о 9:00 за центральноєвропейським часом

"We will send you a reminder soon.

2/ Reminder- Remind me button [A2 only]:

Привіт, це знов я, Діпсі!

Hi, it's me again Depsy!

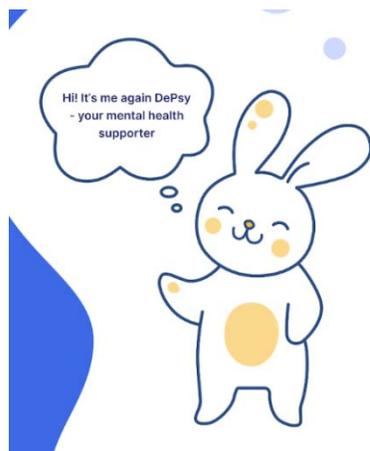


Ти попросив нас нагадати і ось ми тут, давай почнемо [переглядати наше відео і діяти]?

“You asked us to be reminded: here we are, is this a good time for you to take action?”

Click hear !

Control arm: active control page



For all the questions you have, we have created a very useful hotline. This service is free of charge, in the Ukrainian language and all requests are confidential according to the German law.

You can contact us by clicking the call button below.”

[Share button](#)

[Call button](#)

Reminders after first day on bot

Invitation to baseline survey D+1

My research colleagues are conducting a study as part of a project with German hospitals that tries to improve mental health support to Ukrainian refugees. They would like to ask you a few questions about your situation and your well-being.

Especially if you want to find out if you need mental health support this survey will be useful, as you will have the opportunity to get a preliminary diagnosis of anxiety, depression, or post-traumatic stress disorder.

In order to protect your data in the best possible way, the survey takes place outside of Telegram, directly on the server of the ZI hospital.

Please fill out the survey - Here is the link:

<https://redcap2.zi-mannheim.de/surveys/?s=HEAM9EFNAMEECPEL&htid=@@UID@@>

Thank you in advance!

D+2

(Conditional reminder on not having watched the video fully.)

Hi, it's me again, Depsy. How are you? Two days ago, I shared with you a video link – it seems you did not have time to watch it fully. There is a message at the end of the video I'd like to share with you. It's by Kateryna a psychiatrist from Kyiv who is of one of the hotline's initiators.

“Forced relocation, difficulties in adapting to Germany and the uncertainty of the future have affected us all in one way or another. In 2022, I also moved to Germany as a result of the full-scale war. Together with my German colleagues, I have created this Telegram bot and a hotline that helps Ukrainians find a mental health professional in their region. It is free of charge. It is in Ukrainian language. It will help you navigate the German mental health system and find the right mental health professional near you.”

This message may be for you, for one of your beloved ones. Take one more look! And don't hesitate to call my friends at the hotline!

D+3

(Conditional on action - press call, be called, requested to be reminded)



Привіт, це знов я, Діпсі!

Hi, it's me again Detsy!

[If Not clicked any button] Направити нагадування за три дні: можливо тобі потрібен був час подумати. Нагадуємо: якщо ти або твої близькі відчуваєте тривогу, стрес чи смуток - ви можете отримати підтримку! Спеціально для українців працює безкоштовна гаряча лінія українською мовою, щоб допомогти кожному з нас впоратись зі своїми емоційними проблемами. Вона розроблена українськими медичними спеціалістами, бо ми віримо - тобі стане краще! Подивись це відео, якщо ще не зробив цього, і зателефонуй на гарячу лінію або ми зателефонуємо зараз!

Send a reminder after three days: Maybe you needed some time to think. We remind you that if you or your loved ones are experiencing anxiety, stress or sadness, you can get support. There is a free hotline in Ukrainian to help each of us cope with our emotional problems. It was developed by Ukrainian medical specialists because we believe you will get better. Watch and share this video if you haven't already, and call the hotline!

Click hear ! ⇒ If click, land on video page

Reminder [if the person closes the bot without taking any action, immediate prompt]

Привіт, можливо це був невдалий час? Хочеш щоб ми нагадали пізніше? - Просто зараз (?)

Hey, maybe this was not a good time. Would you like to be reminded later? - Immediately (?)

Remind me button

Ally engagement

Ally recruitment (on day D)

(Conditional on watching or not video)

Recruitment sequence [fully watched video]



А ти готовий ділитися чимось корисним?

Are you ready to share something useful?

Message bubble 1:

Together, we can make a difference. Are you interested in becoming our ambassador to spread our message within the Ukrainian community in Germany? It is easy: think about people in need of support, and send a personal invitation to the bot.

Message bubble 2:

Research indicates that invitations by close ones is the best way to help people get the help they need.

Message bubble 3:

No worries, we'll provide you with all the support you need to become effective ambassadors.



**Будемо ділитися разом!
Let's share it together!**

⇒ response button is:

**Так, я з вами / Ні, мене не зацікавило / Нагадайте мені через два дні
Yes I'm in / No, I am not interested/**

If Yes I'm in] → next message

[If No, I am not interested] → conversation stops: *Це окей, ми поважаємо твоє рішення, будь ласка, пам'ятай, що турбота про наше психічне благополуччя - це подорож, яку варто розділити!*

Okay, we respect your decision, but remember taking care of our mental well-being is a journey worth sharing!

Recruitment message - [partly watched video]



А ти готовий ділитися чимось корисним?

Are you ready to share something useful?

Message bubble 1:

Привіт, прихильнику ментального здоров'я!
Турбота про наше психічне благополуччя - це подорож, якою варто поділитися!

Hey Mental Health Supporter!
Taking care of our mental well-being is a journey worth sharing!

Message bubble 2:

Ми помітили, що ти ще не подивився наше відео. Можливо ти пропустив якусь важливу інформацію стосовно гарячої лінії. Може зараз саме час для просмотра?

We noticed you didn't finish watching our video. You might have missed some valuable information, especially about our hotline. Please consider watching the video above before continuing.

Message bubble 3:

Тепер, коли ти подивився відео і, можливо, навіть зателефонував на гарячу лінію, ми хочемо запитати, чи цікаво тобі стати нашим амбасадором, щоб поширювати наше послання в українській спільності?

Нам потрібна ваша підтримка, тому що ви можете змінити ситуацію на краще: Дослідження показують, що коли члени громади діляться інформацією про послуги з охорони психічного здоров'я зі своїми однолітками, це може підвищити ймовірність звернення за допомогою до цих служб.

Now that you have gotten to know our hotline, would you be interested in becoming our ambassador to spread our message within the Ukrainian community in Germany? It is easy: think about people in need of support, and send a personal invitation to the bot.

Message bubble 4:

Research indicates that invitations by close ones is the best way to help people get the help they need.

Message bubble 5:

No worries, we'll provide you with all the support you need to become effective ambassadors.



**Будемо ділитися разом!
Let's share it together!**

⇒ response button is:

**Так, я з вами / Ні, мене не зацікавило / Нагадайте мені через два дні
Yes I'm in / No, I am not interested/**

[If Yes I'm in] → next message

[If No, I am not interested] → conversation stops: *Це окей, ми поважаємо твоє рішення, будь ласка, пам'ятай, що турбота про наше психічне благополуччя - це подорож, яку варто розділити!*

Okay, we respect your decision, but remember taking care of our mental well-being is a journey worth sharing!

Recruitment message - [not watched video]



А ти готовий ділитися чимось корисним?

Are you ready to share something useful?

Message bubble 1:

Привіт, прихильнику ментального здоров'я!

Турбота про наше психічне благополуччя - це подорож, якою варто поділитися!

Hey Mental Health Supporter!

Taking care of our mental well-being is a journey worth sharing!

Message bubble 2:

Ми помітили, що ти ще не подивився наше відео. Можливо ти пропустив якусь важливу інформацію стосовно гарячої лінії. Приділи мені хвилинку - подивись наше відео

We noticed you haven't watched our video yet. You might have missed some valuable information, especially about our hotline. Please consider watching the video above before continuing.

Message bubble 3:

Now that you have gotten to know our hotline, would you be interested in becoming our ambassador to spread our message within the Ukrainian community in Germany? It is easy: think about people in need of support, and send a personal invitation to the bot.

Message bubble 4:

Research indicates that invitations by close ones is the best way to help people get the help they need.

Message bubble 5:

No worries, we'll provide you with all the support you need to become effective ambassadors.



**Будемо ділитися разом!
Let's share it together!**

⇒ response button is:

Так, я з вами / Ні, мене не зацікавило / Нагадайте мені через два дні

Yes I'm in / No, I am not interested/

[If Yes I'm in] → next message

[If No, I am not interested] → conversation stops: Це окей, ми поважаємо твоє рішення, будь ласка, пам'ятай, що турбота про наше психічне благополуччя - це подорож, яку варто розділити!

Okay, we respect your decision, but remember taking care of our mental well-being is a journey worth sharing!

Ally engagement - Day of recruitment

first interaction after recruitment

Message bubble 1:

Дякуємо за твою підтримку! Чи можемо ми дати тобі поради як ділитися повідомленнями?

Thank you for your support!



Can I give you tips on how to share the message?

Message bubble 2:

Пригадай вашу розмову з останніми п'ятьма українськими друзями, які зараз перебувають у Німеччині, з якими ти спілкувався протягом останніх 5 днів. Розпізнати проблеми з психічним здоров'ям не завжди легко, але деякі ознаки вказують нам на них. Слідкуй за змінами в поведінці, перепадами настрою або замкнутістю. Не соромся пропонувати підтримку - вона дійсно може змінити ситуацію.

Think about the last five Ukrainian friends currently in Germany with whom you interacted over the past 5 days. Could any of them benefit from support? Recognizing mental health challenges isn't always easy, but some signs are an indication. Watch for changes in behavior, mood swings, or withdrawal. Don't hesitate to offer support—it can truly make a difference.

Як думаєш, когось із них може зацікавити ця відеоінформація, для себе або щоб поділитися нею з іншими?

Now, do you think any of those may be interested in the video information, for themselves or to share it with others?

⇒ response button:

Так / Hi

Yes / No

[If Yes] → next message

[If No] → conversation stops: Гаразд, дозволь лише нагадати тобі, що іноді ми не знаємо, що відчувають інші люди. Інформація якою ти поділишся може дійти до того, хто її найбільше потребує.

Alright, Let me just remind you that sometimes we don't know how other people feel. Your share might reach someone who needs it most.

Message bubble 3:

Щоб спростити поширення, ми підготували для тебе повідомлення. Ось кілька порад про те, як ділитися:

To simplify sharing, we've prepared a message for you.

Персоналізувати: Додайте свій вклад - поділіться, чому ця ініціатива важлива для вас. Чи ти знавеш, що обмін особистим досвідом може залучити більше людей?

Personalize: Add your touch - share why this initiative matters to you. Did you know that sharing your personal experience might engage people more?

Message bubble 4:



**Ось що би я написала своїм близьким:
Here is what I would write to my loved ones:**

"Привіт! Я щойно дізнався про ініціативу "Давай ставати чуйними одне до одного", спрямовану на зміцнення добробуту нашої української спільноти. Вони запустили зручний Telegram-бот для легкого доступу: "Це займе лише 5 хвилин твого часу, натисни на посилання, щоб дізнатися більше та отримати доступ до безкоштовної гарячої лінії спеціально для нас, українців, українською мовою, з підтримкою для подолання емоційних проблем. Вона була розроблена українськими медичними фахівцями. Переходь за посиланням: [Посилання](#)

I just learned about the initiative "Let's become sensitive to each other" aimed at strengthening the well-being of our Ukrainian community. There is a free hotline in Ukrainian to help each of us cope with our emotional problems. It was developed by Ukrainian medical specialists.

They have launched a convenient Telegram bot to provide you with all the information and the good reasons you need to call the hotline or with everything you need to help you and your loved ones. It is supported by a network of Ukrainian organizations, doctors, and physiotherapists in Germany. It will only take 5 minutes of your time, [click here to learn more!](#)

Share button

Ally engagement – Days after recruitment

(weekly messages, all conditional on having enrolled as allies)

D+7



Такий досвід варто розділити
Hey, this is Depsy again, this experience is

worth sharing

We just wanted to follow-up with you to check if you wrote to the people you had in mind? Have you managed to reach out to them and shared our message?

Here is what our caller **Oxana** has to say about our hotline:

"Highly recommended!"The hotline provided me with free, confidential support in Ukrainian, guiding me through the complexities of the German mental health system. They listened to my concerns and fears with genuine care, offering invaluable assistance in finding the right professional. Thank you for your unwavering support and confidentiality!"

Feeling inspired? Share our bot with your loved ones so they can benefit too or can you think of additional people that could benefit?

Share [because you care]

D+14



worth sharing

**Такий досвід варто розділити
Hey, this is Depsy again, this experience is**

We just wanted to follow-up with you to check if you wrote to the people you had in mind? Have you managed to reach out to them and shared our message?

⇒ **response button:**

Yes, I have shared the message
No, I haven't shared the message

[If Yes, I have shared the message] → Супер, дякуємо тобі за поширення
Great thank you for sharing

[If No, I have not shared yet] →

Приєднуйся до сотень тих, хто вже використовує нашого бота для підтримки української спільноти в Німеччині. Поділіть з близькими та стань частиною спільноти, яка змінює світ на краще!

Join the hundreds who are already using our bot to support the Ukrainian community in Germany. Share with your loved ones and be part of the community making a difference!

Share [because you care]

D+21



Привіт, давай познайомлю тебе з моїми помічниками?

Hi, can I introduce you to my assistants?

Message bubble 1:

Привіт, прихильнику психічного здоров'я! Потрібна додаткова допомога, щоб поділитися повідомленням? Поспілкуйся з одним із наших ком'юніті - менеджерів! Вони готові відповісти на твої запитання. Щоб забезпечити конфіденційність, розмова відбуватиметься поза межами бота в секретному чаті. Відповідь може зайняти кілька годин, але ком'юніті - менеджери зв'яжуться з тобою, як тільки зможуть.

Hello, Mental Health Supporter! Need more assistance to share the message? Chat with one of our community managers! They're available to help answer your questions. To ensure confidentiality, the conversation will take place outside the bot in a secret chat. It may take a few hours for the person to respond, but the community managers will get back to you as soon as they can.

⇒ **response button:**

Так, я хотів би поспілкуватися з ком'юніті - менеджером / Ні, дякую

Yes

No

[If Yes] → Please contact (Telegram user name) in a private chat

D+28



Я пишаюся тобою!

I'm proud of you!

Message bubble 2:

Дякуємо, що ти взяв на себе роль посла для поширення нашого меседжа в українській спільноті! Твоя підтримка безцінна на шляху до кращого. Разом ми можемо творити позитивні зміни та підтримувати тих, хто цього потребує. Дякую за твою відданість та прихильність до цієї важливої справи.

Thank you for taking on the role of ambassador to spread our message in the Ukrainian community! Your support is invaluable on the way to a better world. Together we can create positive change and support those in need. Thank you for your dedication and commitment to this important cause.

C Shell tables

These shell tables are displayed for illustrative purposes only. Other tables may be added. In particular, tables with heterogeneous treatment effects across baseline characteristics are not provided.

C.1 Immediate impacts of within-survey experiment

Table 1: BALANCE

Initial sample	Sample of respondents			p-value (2)=(3)=(4)
	Control	Celebrity treatment	Relatable peer treatment	
(1)	(2)	(3)	(4)	

A. Sociodemographic characteristics

Woman
 Has children
 Age
 (...)

B. Well-being and mental health

Number of observations

Table 2: NON-RESPONSE AND ATTRITION DURING SURVEY

	Control (1)	Celebrity treatment (2)	Relatable peer treatment (3)	p-value (1)=(2)=(3)
A. Initial sample				
Started responding to survey				
Number of observations				
B. Sample of respondents				
Responded question after video				
Ended survey				
Number of observations				

Table 3: TREATMENT UPTAKE

	Celebrity treatment (1)	Relatable peer treatment (2)	p-value (1)=(2)
Clicked on video link			
Watched video fully			
Time watched			
Number of observations			

Table 4: ASSESSMENT OF VIDEO

	Celebrity treatment (1)	Relatable peer treatment (2)	p-value (1)=(2)
The video caught my attention.			
The video provided new information.			
The video provided useful information.			
Willing to forward the video			
Number of observations			

Table 5: ITT AGGREGATE EFFECTS OF VIDEOS

	Control	Celebrity		Relatable peer		
	mean	T1	p-value	T2	p-value	p-value
		(SE)		(SE)		T1=T2
						<i>N</i>
Perceived barriers index	0.00					
		()		()		
Perceived help-seeking stigma index	0.00					
		()		()		
Intention to seek help index	0.00					
		()		()		
Intention to recommend help	0.00					
		()		()		

Table 6: DISAGGREGATED EFFECTS OF VIDEOS ON PERCEIVED BARRIERS TO HELP-SEEKING

	Control	Celebrity		Relatable peer			
	mean	T1 (SE)	p-value [adj. p-value]	T2 (SE)	p-value [adj. p-value]	p-value T1=T2	<i>N</i>
Barrier1	0.00						
Barrier2	0.00						
(...)							
Barrier9	0.00						

C.2 Social media experiment shell tables

Table 7 analyzes the final effect of the intervention on the uptake of the hotline. This is the key table, providing basic answers to questions Q5 and Q6.

Table 7: UPTAKE OF HOTLINE SERVICE

	# unique callers (1)	women (2)	with children (3)	aged below 35 (4)	aged 55 and above (5)	PCL-5 score (6)	PHQ-4 score (7)
A. Full sample calling the hotline							
Control number	#	#	#	#	#	#	#
Treatment vs. Control (β)	#	#	#	#	#	#	#
Be called vs. reminded (β_{Called})	#	#	#	#	#	#	#
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	#	#	#	#	#	#	#
Ally vs. non-ally (β_{Ally})	#	#	#	#	#	#	#
B. Subsample: Seed users calling with clickable link							
Control mean							
Treatment vs. Control (β)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Be called vs. reminded (β_{Called})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
C. Subsample: Higher-order users calling with clickable link							
Control mean							
Treatment vs. Control (β)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Be called vs. reminded (β_{Called})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}

SOURCE: Panel A. Hotline data. Panel B and C. Tracking data and hotline research survey; sample restricted to callers who clicked on phone number on video page, accepted to answer the hotline research survey and to have their responses matched with tracking data.

NOTE: Panel A displays numbers of unique callers (in total, column 1; by sociodemographic groups (columns 2-5); by MH conditions (columns 6-7: number with of callers with PTSD symptoms and number of callers with depression or anxiety symptoms, respectively). Panels B and C control means and and ITT effects (OLS regressions with strata indicators corresponding to seeds' recruitment channels). Panel displays ITT effects following equation 1. Column 1: Number of unique callers per seed, one observation per seed. Column 2-6: one observation per successful caller. P-values and Anderson q-values from OLS regressions that include strata indicators. In columns 2-6, standard errors clustered at the seed level.

Table 8: DISSEMINATION OF VIDEOS

All seeds	By seed recruitment channel						(Possibly influencer)
	Chatbot : MH keyword	Chatbot: other	Pinned message	Link on websie	Poster		
A. Number of users reached (per seed)							
Be called vs. reminded (β_{Called})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
B. Length: Maximum order reached (per seed)							
Be called vs. reminded (β_{Called})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
C. Width: Average number of users at higher-order (per seed)							
Be called vs. reminded (β_{Called})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT	ITT	ITT	ITT	ITT	ITT	ITT
	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}	(se) [p] {q}

SOURCE: Bot tracking data. NOTE: Outcomes are at the seed level: in panel A, numbers of user reached; in panel B, maximum order reached in sharing chain; in panel C, average number of users reached at each order in the chain. Analysis is disaggregated by seed recruitment strata. P-values and Anderson q-values from OLS regressions that include strata indicators.

Table 9: REACTIONS TO VIDEOS

	Started viewing the video	Fully watched the video	Asked to be reminded	Asked to be called	Shared the video	Clicked on phone link
A. Seed users						
Be called vs. reminded (β_{Called})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}
B. Higher-order users						
Be called vs. reminded (β_{Called})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}
Ally vs. non-ally (β_{Ally})	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}		ITT (se) [p] {q}	ITT (se) [p] {q}

SOURCE: Bot tracking data. NOTE: Outcomes are at the user level, distinguishing seed users (panel A) and higher-order users (panel B). In panel B, standard error clustered at the seed level. P-values and Anderson q-values from OLS regressions that include strata indicators.

Table 10: UPTAKE OF ALLY ROLE

All allies	By ally recruitment channel						(Possibly influencer)
	Chatbot : MH keyword	Chatbot: other	Pinned message	Link on website	Poster		
A. Accepted to be an ally							
Mean allies							
Celebrity vs. peer ($\beta_{\text{Celebrity}}$)	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}	ITT (se) [p] {q}
B. Actions as allies							
Number links shared							
Asked for Telegram discussion							
<i>Other responses to ally engagement</i>							

SOURCE: Bot tracking data.