Finding the Best Direction for Promoting Effective Technology Use from the Perspectives of Those Most Affected

Policy Issues and Next Steps for Better Mental Health Through Mental Healthtech

Roundtable Discussion

Discussion summary

- Date and time: Thursday, September 1, 2022; from 10:00 to 12:00
- Format: Online

Contents

Health and Global Policy Institute (HGPI) Mental Health Policy Project

■ Discussion point 1: How should people determine what mental healthtech fits their needs?

Summary

Because users may possess poor self-awareness toward disturbances to their mental health, because mental health conditions can change over time, and because there is diversity in how people subjectively perceive their conditions or the degree of their issues, it can be difficult for people to select mental health services. Currently, this selection is left up to the knowledge and intent of the user, and information regarding service content may be incomplete, so selecting a service can present a significant burden.

Discussion points and details

There are significant difficulties and issues related to users being able to grasp their own conditions which may be changing continuously, as well as to selecting services that match the issues users are able to grasp.

➢ It can be difficult for users to understand and grasp their own mental conditions or the degree of the issues they face, and there are times the functions of services are unclear. As a result, there may be times when efforts to match services to users' needs end in failure. To overcome this, in addition to providing support to help users grasp their own conditions, it will be necessary to clarify what functions services offer and **consider what actions can be taken to help match users and services with greater accuracy.**

➢ In addition, when a user's mental condition changes, their needs also change. This in turn changes the objectives of the services they require. For people who are healthy, examples of such objectives include preventing the onset of symptoms or maintaining a healthy condition. For people experiencing distress, they may include returning to a normal condition. For people who require regular visits to healthcare facilities, they may include communication support so they can convey their symptoms to health professionals, or support for medication use.

➢ Due to these factors, as a user's needs can change according to their mental state, it is considered difficult to conduct appropriate matching between users and services. This can ultimately lead to users suspending use of services prematurely. Other reasons users may suspend use include losing the will to even choose a service due to their condition worsening, or users finding it difficult to feel satisfaction with services due to negative word-of-mouth from other users whose issues actually differ from their own.

Mental health is a broad concept and diverse issues related to services including quality control and enhancing usability must be addressed.

➢ It is desirable that some quality control standards for services are established.

➢ Which party develops services is related to user trust. For example, user motivation can be influenced by whether the service development process involved collaboration with the Government, or if the service was developed through a research institute at a university.

➢ Overseas, **efforts are being made to improve services through better usability by implementing designs with user interfaces that meet diverse needs**. For example, in the U.S., a platform has been created in which users can select which service matches their preferences from a list of usability features (like voice or text).

➢ For service selection to be conducted in a voluntary manner that meets standards, it is desirable that users

will be able to view items like security, evidence, goals, reliability, and usability in lists so services can be selected according to diverse needs.

Support from industry can be an effective tool for helping users select services on their own. Issues facing industry support must be sorted and steps to foster industry must be taken.

➢ The services required and the value users seek from them changes according to users' goals when using those services. Furthermore, there are great differences according to whether the actor (the party using the service) is someone living with a mental health issue or someone at a company that wants to recommend a service to affected parties and is interacting with the service with an administrative point of view.

➢ Currently, organizations emphasize protecting the affected parties who may find it difficult to grasp the state of their own mental health, but the presence of information asymmetry makes it hard to say users can select services independently.

■ Discussion point 2: What should be done when someone needs medical care?

Summary

In mental health, people may find it difficult to understand and grasp their own conditions, so it is important for users to be able to grasp their own conditions and make good use of their own information. To help them do this, it will be necessary to provide opportunities for dialogue where users can be encouraged to interpret their feelings toward issues when they are troubled, to build a system for creating opportunities for dialogue, and to develop a system that makes seamless connections between prevention, health promotion, and medical care. Furthermore, careful arrangements should be made regarding the data that is handled or utilized within the scope of these activities so it is done in accordance with laws and regulations and with consent from users obtained in advance.

Discussion points and details

Issues that require action include the need to establish criteria for determining when someone should be moved from prevention and health promotion services to medical care services, as well as items like notification systems and linking data. Among those issues, consideration must also be paid toward how to respond when users themselves do not feel the need for medical care.

➢ Because **mental health conditions are constantly changing,** it is unclear where to draw the line for determining when medical care is necessary. One factor that may make it difficult for people to grasp their condition is that almost all of the services we have seen so far did not include functions related to self-evaluation, assessment, or psychological education that help people understand their own feelings and emotions.

➢ Therefore, **services that notify users of their own mental health over the course of use should be established.** Because there are many times when users cannot fully express their own troubles in words and fully grasp them, **it is also important to enhance consultation support that connects people to healthcare at earlier stages**. Based on a premise that only leading people to healthcare is not a solution, it would be good if,

for example, these efforts started with listening to users during consultations and **providing support through conversations that help users sort issues**.

➢ After doing so, next, **technology should detect user conditions and notify them in an appropriate manner**. A mechanism that connects people to medical care when they need it is extremely important for users. At the same time, among users who are unaware of their own conditions, there are cases in which screening reveals they have severe conditions and require medical care. To lower the chances that users' conditions worsen without them noticing, screenings may also be required, and they must be based on evidence.

➢ By establishing certain standards, the challenge will then be **when, how, and to what degree users can be provided with accurate notifications** when it has been determined that their condition has worsened. In mental health, when telling a user that their condition is poor, serious consideration must be given to how the user may be affected when that information is conveyed. While focusing on urgent conditions and requiring user consent to be obtained in advance, there may be room to consider features that gather personal information like the user's emergency contacts and location data so collaboration can take place with the emergency healthcare facility that is closest to the user. This collaboration can be used to form safety plans, or to encourage users to visit health facilities for examinations.

To prevent satisfaction levels from dropping due to mismatches between services and users' needs, in addition to issues related to how to connect people to healthcare, mechanisms to consider what happens after connecting them will also be necessary.

➢ Another issue will be to **determine how users can communicate that they require medical care to the people who provide it**. It is worthwhile to consider functions that provide support in the form of objective and accurate feedback regarding a user's condition, to help users put their own conditions into words, or to provide training on how to best convey that information. Utilizing such functions is likely to lower users' anxiety, reduce discrepancies in how users and physicians perceive the conditions, and improve user satisfaction toward medical examinations.

➢ Given current circumstances, mismatches with healthcare can occur easily. It is important to have perspectives on how services can contribute to correcting mismatches rather than taking a siloed approach that assumes all problems can be addressed if people are connected to medical care.

When developing services, there are significant rule differences between the fields of prevention/health promotion and the field of medicine. We must hold discussions on topics like the creation of cross-disciplinary guidelines to address issues for interlinking them.

➢ There are countless services in prevention and health promotion that have no scientific basis. There is a mixture of good and bad, with some of those service providers pursuing effectiveness, while others only provide ease of use. Conversely, in medical care, using such services constitutes the use of a medical device, so handling privacy and data is generally addressed as a step in obtaining regulatory approval.

➢ As such, **they have completely different rules they must follow and conditions they must meet during development, so it is extremely difficult to interlink such services**.

➢ In addition, on the cost side, medical care services require extremely expensive security measures, and this becomes much more expensive when attempting to provide the same measures for prevention and health promotion services. This can cause a mismatch for users regarding how they perceive the costs of services.

➢ There are also great differences between data security for prevention/health promotion and medical care. Both have technical and legal challenges that must be overcome before sensitive private information like medical history, test results, and notification records can be shared between the two, as well as before medical data can be shared with prevention/health promotion services or with social recovery support services during convalescence.

➢ Ministries and academic societies should actively participate in quality control by developing official guidelines that are tailored to real-world conditions in Japan.

From the perspective of properly handling private personal information with the goal of enabling users to utilize services with peace of mind, it will be necessary for services to obtain consent and maintain accountability regarding data handling and the scope of secondary usage.

➢ While secondary use of data is generally covered in services' Terms of Use, it is easy for service users to develop feelings of distrust toward the secondary use of their data without their knowledge. The risk of individuals being identifiable with single keywords is high, so **we must discuss what restrictions should be put in place for handling personal information**.

➢ The denser the personal information, the more users can learn what they want to know about each other, and the deeper their communication. However, there is a dilemma in terms of protecting private personal information. Namely, denser information can result in information leaks or cause trouble among users.

➢ When it becomes necessary to refer a user to medical care, it will be necessary to pay consideration to obtaining user consent after clearly stating, in an easy-to-understand manner, what personal information will be provided and to whom.

➢ Sharing information with third parties without consent or utilizing processed information (such as for in-house secondary use or use for research) becomes a problem under the Act on the Protection of Personal Information. There are a number of preparations for secondary data use in this area that must be made during the development stages for services. The first is identifying what points to be cautious of when handling personal information in a service. For the field of mental health in particular, **the fact that users disclose information they do not want anyone else to know must be taken into account, and special care should be taken when handling that information**. The second point is to **provide explanations in advance regarding how information can be handled within the scope of the law and how it will be used** so users can accept the usage environment with peace of mind. Third is that **it is important for explanations to be provided in a manner that users will find easy to understand**.

To help users make smooth transitions from prevention/health promotion to medical care, in addition to initiatives made from both sides, it will be necessary to establish mechanisms and systems that can serve as bridges between them.

- Social frameworks that actively bridge prevention/health promotion services and medical care services must be built. For example, **if structures that include service developers and trusted third parties (for example, industrial physicians' companies or companies that provide psychiatric interviews with counselors) become common, it will result in smoother transitions over the boundaries between prevention and medical care.** It may be possible to accomplish this by involving insurance companies.

- As a mechanism in the healthcare system, **it may be possible to construct a support system on the medical side that improves interoperability between prevention and healthcare by establishing incentives in the medical service fee schedule to form a support system.** However, instead of attempting to address every condition through health services using such a system, it is desirable for that system to be based on the conditions that the affected parties aim to address and to share those aims.

- To ensure prevention/health promotion services and medical care services are of sufficient quality for recipients, **a training system for service recipients must also be established.**

■ Discussion point 3: What evidence is necessary for mental healthtech?

Summary

In medical care, there are many cases in which evidence must be based on objective indicators. However, subjective assessments are also important for prevention services, health promotion services, and medical services in the context of mental health. Rather than only having objective indicators, it is desirable that evidence is established on a variety of evaluation axes that also include subjective indicators (such as satisfaction levels). Other items that will also be necessary include mechanisms that allow each user to select services by function to match their intended conditions for recovery. A system for developing said mechanisms will also be necessary.

Discussion points and details

In mental health, in addition to objective assessments, subjective assessments are also important for users. Considering evidence from broad perspectives will be important.

- Mental health encompasses broad concepts and must be placed along multifaceted and integrated evaluation axes. It is possible to categorize mental health using various evaluation axes. These might include emotional aspects, such as anxiety; or aspects related to safety, like ensuring users are not made to feel unwell or disadvantaged; or those that help users continue utilizing services, such as continuity or economic aspects.

- If a service enables users to be able to maintain a subjective state of ease, it would be highly beneficial for users. However, discrepancies in assessment results can occur. For example, a service with high marks in subjective assessments may score low in objective assessments.

- At the same time, even if there is objective evidence that a service is effective, usage of the service will not continue if satisfaction and continuity are low. In that context, it will be important to expand the scope of subjective and objective assessments to encompass criteria like dropout rates, accessibility, and usability.

- Satisfaction levels and continuity rates for smartphone applications and other forms of digital mental health care decrease as users' conditions worsen. However, online counseling provided remotely has been found to

have high satisfaction rates even when users' conditions are severe. Changing evaluation axes according to transitions in mental health is also worth considering.

Because the underlying thinking and methods of establishing evidence for prevention/health promotion services differ from those for medical care, while referring to standard evaluation methods and criteria from countries with advanced efforts in this area, we will aim to create evidence establishment guidelines that fit real-world circumstances in Japan.

➢ In medical care, RCTs and other intervention studies are normally conducted as part of assessing drug efficacy. But in the prevention stage, after someone develops a mental disorder, it is difficult to follow up with people to determine if they had previously been using services or not. Right now, prevention/health promotion service providers are not proactive about pursuing evidence, so steps to promote awareness among service providers must be taken. There are, however, certain hurdles to investing financial resources during the development process for conducting intervention studies to verify safety and effectiveness from the prevention phase.

➢ While it is important to assess safety and effectiveness, standards regarding evaluation methods and items have not been established regarding what evidence to use or how to generate evidence in the first place.

➢ In the U.S., which has over 5,000 services related to mental health, the American Psychological Association (APA) has proposed a service evaluation model to address this issue. **In addition to items like access, privacy, safety, and goals, their proposed model also incorporates users' perspectives with items like usability**.

➢ There are many things Japan can do to follow suit. There are high hopes for such efforts to begin with the development of similar standardized models. When doing so, it will also be necessary to be aware of cost-effectiveness.

➢ From the perspective of usage continuity, in addition to assessing outcomes, it is also important to evaluate structures (such as user interface and design) and processes (such as usage situations and satisfaction levels) to serve as alternative endpoints.

In the fields of prevention and health promotion, it will be important to establish certain regulations to ensure safety and to avoid statements regarding effectiveness.

➢ Care will be necessary to avoid statements like, "This service is effective for…" and use more mild wording to describe effects to avoid violating the Pharmaceutical Affairs Law.

➢ It is difficult to produce effects through interventions over services in the field of prevention. This means service providers must be obligated to ensure minimum safety standards that there is no harm in using their services, and certain regulations must be put in place.

Another topic to be considered is creating evidence that takes into account the fact that technology facilitates connections among people but does not replace them.

➢ AI and cognitive technologies are not meant to completely replace people. Rather, they are only meant for creating opportunities for people to interact. This means that instead of only considering technology alone, it

will be important to be aware of how to create evidence from the perspective of how to combine it with people.

■Discussion point 4: Who bears the costs of prevention and health promotion?

Summary

A cost allocation model in which costs are borne by the people and organizations near to the users who wish to protect them is considered a more sustainable option than relying on users to shoulder the costs on their own. It is also possible that such a cost allocation model may be altered because the scope of coverage provided by laws and systems is different between prevention/health promotion and medical care. The gaps between these systems must not prevent services from being delivered to people who truly need support. Concrete steps must be taken to advance the creation of frameworks and systems to ensure support is delivered to those who need it.

Discussion points and details

It is realistic to have organizations and institutions cover the costs of providing services and mechanisms, and a system must be built that makes it difficult to hinder such arrangements.

➢ A business model in which users do not bear the costs themselves should be the standard. This is not limited to mental health; it also applies to healthcare-related services and prevention/health promotion services. When users grasp their own issues and use services with the intent to improve or treat their condition, it is highly likely they will pay for the services themselves. But, when the condition is unclear, or while they are still unaware of it, they are less likely to be willing to invest in themselves and prevent health issues. In addition, mental health can worsen due to economic factors, so it is difficult to demand payments from users on a business-to-consumer basis.

➢ Because of this, currently, it is realistic to have a third party bear the cost burden for helping the person in question maintain their current health or prevent their condition from worsening and to ensure their good health in the future. There are a number of possible ways to design such systems. For example, the Government could pay insurance premiums to protect the health of citizens; companies could pay service fees to ensure good health of employees, while employees could use them for free; and local governments providing maternal and child health services could cover said costs to prevent mental health problems among pregnant and nursing mothers.

➢ As we have seen, the business models are made more complex because decision-makers and users are separate, but in the field of mental health care, where it is difficult for people to grasp their own issues, it is common for financial support to come from people or institutions who want better health for users.

➢ One growing trend in recent years is for companies to introduce programs with a health management approach that aims to help employees not only recover from negative mental health back to normal, as a safety measure, but also to help them attain better mental health than before. It is easy to motivate companies to take action if they are told it will help improve employee productivity. For example, it can be easier to expand such initiatives by combining efforts to teach more positive ways of speaking and presenting, such as in positive mental health initiatives.

➢ For users to benefit, the system must be sustainable in a manner that allows business to recoup their costs. In that sense, increasing the burden of cost borne by businesses as a step for investing in human resources through steps like providing public funding or incorporation in the health insurance system may gradually bring investments in mental health and the mind closer to society. For example, we sometimes see companies that have successfully profited by putting together psychological tests that are assigned points in the medical service fee schedule.

With current business models, it can be difficult to reach people who have left the workforce or have irregular employment, hindering efforts to deliver support to people who need it. Discussions must be held on how to design service access and cost allocation models so support can be delivered to people who are difficult to reach.

➢ The health insurance system is currently structured in a manner in which companies pay for insurance for employees, while national health insurance is generally paid for by local governments. The nature of the insurance system is that it focuses on providing benefits when accidents occur. Given its nature, it is difficult to cover prevention.

➢ Currently, within Government ministries, methods of properly transferring information regarding the use of the health insurance system for prevention have yet to be fully established. A ministry must be placed in charge and steps must be taken to arrange budgets and establish evidence in a cross-cutting, coordinated manner.

➢ Prevention projects are conducted in accordance with the Industrial Safety and Health Act and services are provided within that framework. Because they are not provided within the framework of the Health Insurance Act, one potential solution might be to expand such services starting with investments from companies engaged in health management or similar activities.

➢ When providing health management-like services for groups through smaller-scale initiatives, it is common practice to use models in which companies bear costs. As the market expands as additional services from health management consulting companies and insurance companies are introduced, it will become necessary for those on the policy side to lay the groundwork for encouraging fair and equal market competition as well as appropriate service selections among users.

➢ The target population for mental health care in a health management-based approach includes full-time employees and a portion of employees on fixed-term contracts. However, from a social gradient perspective, which focuses on distributing resources to socially disadvantaged people, emphasis should be placed on people who have left the workforce or who repeatedly change or leave jobs. One problem right now is that resources are not being distributed in a weighted manner to people who have left the workforce or who repeatedly change or leave jobs. In fact, there are times such people are not even included when resources are distributed. In order to address this lack of a gradient, it will be necessary to consider different models for responding to the mental health needs of people who do not belong to companies, such as freelancers.

■ Preparing for future policy recommendations

Summary

Systems and mechanisms for including members of society who are struggling are fundamental and inherent requirements of society. To establish such systems and mechanisms, it will also be important to build a system that enables providers to offer sustainable services. Furthermore, it is also important for society to provide support for mental health conditions experienced over the entire life course, and establishing a system for that is also crucial.

Discussion points and details

With collaboration from industry, Government, academia, and civil society, it will be necessary to crystallize issues in cases where services are not reaching the people who truly need them and to reexamine frameworks for service delivery.

➢ While making simultaneous progress in advancing the health management approach in workplaces, the mental health of those in non-regular employment or who are on leave must not go forgotten. There is also growing attention being paid toward employees who are present at work but whose health is poor. However, given current circumstances, people in ambiguous positions like these are still difficult to reach.

➢ To expand the scope of who is covered, there are lingering issues regarding sustainable monetization mechanisms for service providers. Service providers or multi-stakeholders will have to hold discussions together, verify their PDCA cycles, and reinforce cooperation.

➢ Businesses involved in people's health should have certain standards regarding safety and effectiveness that they must follow. Given the low barrier to entry today, it will be necessary to change attitudes among service providers.

Because anyone can experience a mental health-related issue due to changes in circumstances or their environment, it will be necessary to establish measures for mental health that span the life course and create opportunities for all people to learn about mental health early on.

➢ Decreases in wellbeing experienced during childhood or adolescence can have effects later in life.

➢ Key characteristics of mental health include the fact that it is difficult to grasp one's own condition and that mental conditions are always changing. To enable people to find the services that are right for their mental state or right for them, opportunities must be created to allow people to experience those services early on as well as to acquire health and information literacy. If people become accustomed to services early in life, in terms of a life course perspective, they will come to recognize such services as natural or obvious choices, which will make it easier for them to feel the significance of bearing the financial burden.

➢ It is desirable that the technologies behind services become more advanced so they can begin to provide mental health navigation. One characteristic of mental health issues is that they are difficult to continuously face on one's own. This means that instead of only having users learn about mental health through service usage, services should accompany people over the life course and become tools that provide each individual with better navigation through each life phase and the choices in life.

The aspect of social inclusion must be reinforced in line with the historical backdrop. Attention must be paid to expanding services that can be made sustainable and delivered to those who need them through ingenuity on the finance side.

➢ To improve accessibility, we must introduce mental health in discussions on diversity and inclusion.

➢ The modules for when services enter into the market will also be reviewed. Rather than just approaching problems for mental health, when entering the market, it will be necessary to position services within models that take into account problems closely related to mental health, such as physical condition and environment.

➢ Efforts should also be devoted to steps that can be taken for finance. There are two areas where there is no social gradient and work should be done to address them. The first is awareness toward investing in health among individuals. The healthier an individual is, the more they tend to spend on health, while the parties most affected either do not invest in health or are in environments where they cannot invest in health. This makes it difficult for service providers to implement mechanisms for monetization that take payments from those most affected. The second is the healthier an individual is, the more likely they are to be enrolled in the more advantageous, stable public health insurance system, and the easier it is to deliver services to them. It is harder to reach those who are using national health insurance or are receiving livelihood support and who truly need those services. While reshaping the fundamentals of Japan's health insurance system, it will be necessary to solve this issue to a certain extent in the market.

➢ In the past, efforts to promote better health among members of the workforce tended to focus on lifestyle-related diseases, but recently, the context of work style reform and mental health has also attracted attention, and new businesses utilizing online medical examinations are starting to appear. A foundation for services will be built and expanded while borrowing the strength of the market. Strategies to help build that momentum by holding events to conduct horizontal matching among such services, like the Data Health and Prevention Service Trade Fair, are also worth considering.

Roundtable discussion participants (Titles omitted. Please note that affiliations and positions are current as of the time of writing.)

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This report was compiled by HGPI in its capacity as an independent and neutral health policy think-tank. It is based on a roundtable discussion held under the Chatham House Rule that took place on September 1, 2022.