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An illustration of a woman with dark hair, wearing a white lab coat over a pink top, standing next to a brown and white cat. The background is yellow with a grid pattern. The illustration is framed by a light blue border and surrounded by several semi-transparent blue and yellow squares of varying sizes.

Health Literacy e-learning

Part 1 'The ability to adequately access health information'

Part 2 'The ability to adequately evaluate health information'

Part 3 'The ability to adequately evaluate health information'
(Practical examples)



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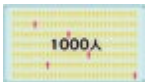


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Acquiring health literacy

Nurse Let's learn about how to acquire health literacy.

Client What exactly does the term 'health literacy' mean?

Nurse For example, imagine what kind of methods you take when researching about your own health.

Client In my case... I mostly search the Internet about my symptoms and illness or read books in the library.

Nurse I see.

Client But since I come across lots of information one after another, honestly, I don't know which information is correct.

Nurse You're right. We are surrounded by tons of information regarding health. Since medicine is advancing on a daily basis, new information is added on a daily basis, too.

Client So I need to select the correct information that suits me and be able to use that?

Nurse That's right. The 'ability to decide your own health' is what we refer to as 'health literacy'.

Client Health literacy.....!

Nurse Health literacy has four aspects: it's to 'access, understand, evaluate, and use' health information. Firstly, you must access information. Next, you must accurately understand it, assess whether that information suits you, and use that. The key to health literacy is whether you take these steps or not. Now let us think about the first two steps, to 'access and understand'.

Client Health literacy... Do you think I can acquire it, too?

Nurse Don't worry. Everybody has a certain degree of health literacy from past medical experiences and life experiences.

Client We do?

Nurse Yes, of course. All you need to do is to brush up the ability that you've already acquired. In doing so, you'll be able to access correct information and select the information that best suits you.

Client I see.....

Nurse For example, let's say you got sick and sought medical attention at the hospital. When the doctor explains your condition or when you receive instructions for your medication, how much of that do you really understand?

Client Well... I might be thinking, "It must be true because the doctor says so."

Nurse It's important not to accept everything you hear without questioning it, but making decisions only if you're convinced. Next, let's learn in depth about how you can brush up your health literacy.

Client I look forward to it.

Identify what you want to search for

Nurse Identify what you want to search for.

Nurse For example, what would you do if you saw this news on television?

Client Well…… I'd be really worried that maybe I'm one of them, too. It would make me want to do some research immediately.

Nurse I see. It's not a bad thing to search for information right away. But there are various methods to search including television, the Internet, your family, friends, doctors and pharmacists. Before searching aimlessly, it's important to calm down and devise a strategy to search for information.

Client A strategy?

Nurse That's right. Let me explain the strategy step by step. Step 1. Identify what kind of information you want to search for. Get a pen and paper, jot down your questions and what you want to know, and organize your thoughts.

Client Jot down? But I don't know where to start……

Nurse Then let's think about the television we watched. When you saw the news, you were worried that maybe you'll develop osteoporosis too. Let's think of questions related to your worries by asking "What?" "Why?" "How?" and consider the issue from various points of views.

Client Various points of views?

Nurse For example, "What?" can be turned into the question "What is osteoporosis in the first place?" and "Why?" can be turned into "Why does our bone density decrease as we get older?"

Client I see.

Nurse By changing the point of view, multiple questions can be linked to your worry "I may develop osteoporosis."

Client That way, I feel like I can learn the basics of osteoporosis.

Nurse Exactly. Based on what we've learned, let's move on to the next step. In the next lesson, let's try searching for actual information based on some key words.

Client Okay, I look forward to it.

Understanding the characteristics of the source

Nurse This is Step two. Let's be conscious about 'the characteristics of the information platform'.

Client The characteristics of the information platform?

Nurse For example, the platform of television, radio, magazines and newspapers is 'mass media'. They're designed to be transmitted to an indefinite amount of people, so it's appropriate when you're looking for new information such as recent topics and the news, but it may be difficult to find the exact information you're looking for.

Client I see.

Nurse Maybe your friends, family member, or family doctor has the information you're looking for, but……

Client They might not be close by……

Nurse That's right. Books are convenient when searching for a substantial amount of information, but it takes time to be published compared to television, radio, and the Internet.

Client I see there are lots of platforms when searching for information.

Nurse When searching for information, be conscious about what type of information that particular platform is good at. Now let's search for information on your questions using some keywords.

Client I search on the Internet, right?

Nurse Right. When searching, use short words instead of sentences. The combination is also important. Search results can vary depending on the combination of keywords.

Client 'Dietary habit' and 'diet' are close in meaning, but the search results differ.

Nurse That's right. You should test various combination of keywords that best expresses what you want to know.

Client But no matter what words I use, millions of search results are displayed……

Nurse Whether it's public information, personal opinions, or corporate advertisements, Internet search results display them in the same way. So it's important to access the necessary and essential information.

Client Being at the top of the search results or standing out doesn't necessarily mean that it's an essential piece of information for me.

Nurse That's right. But that's not limited to the Internet. The same thing can be said when looking for books at the book store or library. Various types of books exist. There are medical books targeting healthcare professionals, health-related books targeting the general public, and there are personal journals about battling diseases.

Client I must select the book that best suits me, right?

Nurse Right, but in the case of books, even if the words 'dietary habit' isn't in the book title, the contents may include information related to that. It's important to not only check the title, but also the table of contents and foreword.

Client I see.

Nurse In the next lesson, I'll explain some points to confirm after you've selected a piece of information.

Client Thank you. I look forward to it.

Use "3WSC" to check health information - Part 1

Nurse Use "3WSC" to check health information - Part 1.

Nurse In our previous lesson, I explained about what to be conscious of when selecting information using the Internet and books. This time, I'll explain some important points you must confirm when you've found information.

Client Important points?

Nurse That's right. The five points you must confirm are When it was written, What it was written for, Who wrote it, the Source, and Comparing that with other information. Using the first letters of the five words, we call it '3WSC'.

Client '3WSC'.

Nurse Exactly. Let me explain one by one. The first 'W' is When that information was written. In other words, check how old that information is.

Client If the information is old, would that be a problem?

Nurse For example, if you're researching about medical treatment, if the information is old, new treatments may have been developed after that. That's why you must always confirm the date the information was written as well as the date it was updated. In case of books, be sure to check the publication date indicated in the book.

Nurse If you're on the Internet, check when that website was created and when that particular article was written.

Client I understand.

Nurse The next 'W' is What that information was written for.

Client Because it may just be an advertisement for something?

Nurse Exactly. In order to check what it was written for, check the foreword and afterword of a book. If it's a webpage, be sure to read about the website and check what the information is being written for. The next 'W' is to check Who wrote that information. Check the areas of expertise of the author, publishing company, and website administrator as well as where they belong to.

Client How do you check their areas of expertise or where they belong to?

Nurse If it's a book, check which academic society the author belongs to and what kind of company published it. If it's a webpage, check who wrote the article and who the administrator is. Unfortunately, you can release information anonymously on the Internet, so in some cases, it may be difficult to identify who released that information. You must always be careful about that. So far, we've covered the 3Ws.

Client We must check when it was written, what it was written for and who wrote it.

Nurse That's right. After checking the information using the 3Ws, you must check the authenticity of that information using S and C. I'll explain this next.

Client Okay, I look forward to it.

Use "3WSC" to check health information - Part 2

Nurse Use "3WSC" to check health information - Part 2.

Nurse In the previous lesson, I explained three points about the information you find: when it was written, what it was written for, and who wrote it.

Client Yes. "When it was written, What it was written for, and Who wrote it." The 3Ws.

Nurse That's right. Let's look at the next two points to check: S and C. Firstly, 'S' is the Source. In other words, what's the evidence that backs that information? "Evidence" refers to the source which that information was based upon.

Client Why do we need to confirm the evidence of that information?

Nurse If the evidence isn't indicated, that information may simply be an individual's personal opinion or assertion. That's why it's necessary to check the credibility of that information by checking whether or not the evidence is indicated clearly.

Client What exactly does an evidence refer to?

Nurse For example, if the information is about statistics or research results, does the information clearly indicate what source that data was based upon? Even if the source is indicated, can you really be sure the source is non-biased?

Client Non-biased?

Nurse It means whether or not the writer is quoting only from their own writings, tends to quote from the same person's research or writings, or only cites favorable results. A good example of this is all the favorable comments you see in testimonials.

Client Even if it was effective for them, it doesn't necessarily mean it's effective for me.....

Nurse Exactly. That's why it's crucial to confirm each and every information very carefully.

Client If the information source turns out to be nonsense, it'll do more harm than good.

Nurse Exactly. The final 'C' is whether you've Compared it with other information. In other words, data comparison. You should never be satisfied with just one piece of information. It's important to find a number of different information and compare them with one another. For example, let's say there are two opposing opinions about a certain medication. When that happens, compare that with books or webpages written by a different individual, and you'll learn another perspective of that medication. In recent years, it has become normal to seek second opinions about medical treatments. It's to seek the advice of an expert besides your primary doctor, compare their opinions, and select the treatment that best suits you.

Client I see..... It's quite a task to search for information that suits me.

Nurse You're right. There are enormous amounts and types of health information out there. In order to come across the information that you really need, you must take the strategies we've been talking about and confirm each and every piece of information carefully.

Client That's quite a task..... but it's for the sake of my own health.

Nurse So far, we've discussed about how to search for information and how to check it. Let's proceed to the next step and learn how to understand that information.

Client Okay, I look forward to it.

Understanding the information correctly

Nurse Understanding the information correctly.

Nurse In the previous lesson, we learned how to search for and check information.

Client Yes, '3WSC' .

Nurse Based on that, let's learn how to understand information correctly after finding it.

Client Okay.

Nurse I said "understand the information correctly" , but what exactly does 'understand' mean? Let's say you found this information. Can you please read it out loud?

Client Sure. Let's see..... "Calcium is an essential nutrient for healthy bones. Consume plenty of calcium and prevent osteoporosis." I see.

Nurse When you read this information, what came to mind?

Client Well... I thought, since I don't want to develop osteoporosis, I have to consume lots of calcium. Maybe I should drink milk, or maybe I should take calcium supplements. I thought about what I should do specifically.

Nurse I see. But before thinking about specific examples, isn't there something that you must ask yourself? Does the information 'Consuming plenty of calcium will prevent osteoporosis' based on evidence?

Client Oh.....! Now that you mention it, this information doesn't indicate the evidence.

Nurse Exactly. In order to understand information correctly, it's important not to believe ambiguous information, but 'think based on evidence' . And in order to think based on evidence, you should examine a piece of information from four perspectives. Be conscious of the total number. Consider other causes. Make a comparison. Consider both aspects. Through these four perspectives, you'll be able to deepen your understanding of the information.

Client They're kind of similar to the '3WSC' you explained earlier.

Nurse Yes, maybe they are. They're similar because finding information and understanding that correctly both require you to verify the information from various perspectives instead of keeping it ambiguous.

Client I see.

Nurse In the next lesson, we'll use the information of osteoporosis as an example and learn about each of the four perspectives one by one.

Client Okay. I look forward to it.

Be conscious of the total number

Nurse Be conscious of the total number.

Nurse In the previous lesson, I introduced the four perspectives of understanding information. In this lesson, we'll take a look at the first perspective, 'be conscious of the total number'. You may have seen ads like this on television or in magazines. It says, 'A daily intake of 800 mg of calcium increases bone density and prevents osteoporosis'.

Client It's great if osteoporosis can easily be prevented with this supplement.

Nurse The ad introduces the testimonials of five people who experienced the successful effect.

Client If it worked on that many people, it must be effective for me, too.

Nurse But wait a minute. What if these five people were among a total of 1,000 people who took the supplement? What if the bone density only increased in these five people.....?

Client I'd think, 'Only five people?'

Nurse If that's the case, do you really think this supplement is effective? When you look at ads like this, it's very important to consider the total number of people who tested the product. Let's consider this ad using a fraction. In this case, what is the denominator?

Client The denominator is the number of people who took it, so..... 1,000 people!

Nurse That's right. The total number is 1,000 people. Then what's the numerator?

Client Um..... The numerator is the number of people whose bone density increased, so..... I think it's five people.

Nurse That's right. The numerator is the number of people whose bone density actually increased after taking the supplement, so that's five people. If you divide the numerator with the denominator, that's..... 0.005, in other words, 0.5%.

Client If it was only effective for 0.5% of the total number of people, even if I took it, it might not have an effect on me.....

Nurse Perhaps so. When you come across a number like this, not limited to ads, don't believe it without questioning it. It's important to consider the total number, in other words, the 'denominator'.

Client This number is taking on a different meaning for me now.

Nurse In the next lesson, we'll learn about understanding information from another perspective.

Client I look forward to it.

Consider other causes

Nurse Consider other causes.

Nurse The second perspective in order to correctly understand information is to consider other causes.

Client Consider other causes?

Nurse That's right. When your condition improves or worsens, don't you tend to assume that the most noticeable incident was the cause? But if you focus on just one cause, you may in fact overlook other significant causes.

Client I see……

Nurse Let's take our previous lesson as an example. Previously, we learned that the information stating that 'taking lots of calcium will prevent osteoporosis' is based on some shady evidence. Then does that mean we don't have to consume calcium? Or is it indeed better to consume calcium?

Client Hmm…… I feel that it's better to consume it, but if it doesn't prevent osteoporosis, maybe it's meaningless……

Nurse Please think about the reason why you thought that consuming lots of calcium will prevent osteoporosis.

Client The reason……? Calcium is a nutrient that maintains healthy bones, so I felt that if you lack it, you have a higher chance of developing osteoporosis.

Nurse I see. But do you think the lack of calcium is the only cause of osteoporosis?

Client It's not?

Nurse The reason why bone density decreases is not only because of a lack of calcium. Aging and menopause can cause an imbalance in the bone's function to regenerate, and it's known that the lack of Vitamin D, Vitamin K, and protein, or lack of exercise can cause a decrease in bone density.

Client That many causes……!?

Nurse That's because many different factors are involved to maintain bone density. So if you're only focusing on calcium, you won't be able to see these other causes, right?

Client You're right…… I wouldn't have been able to discover that taking calcium only isn't enough to prevent osteoporosis.

Nurse That's why when something happens, it's important to consider multiple reasons that may have caused it.

Client I clearly understand that now.

Nurse Now that we know there are various causes, what should do about calcium then? Let's learn that in the next lesson.

Client Client I look forward to it.

Make a comparison

Nurse Make a comparison.

Nurse We talked about osteoporosis in the previous lesson. Do you remember some of the causes?

Client Yes, of course. To prevent osteoporosis, in addition to calcium, you need nutrients such as Vitamin D, Vitamin K, protein, and it's also important to exercise.

Nurse Yes, that's right. Based on that, let's think about how much calcium you should consume on a daily basis. Let me introduce a study that will provide you with a hint.

They did a comparison between a group of women after menopause who consumed less than 400 mg of calcium a day and another group of women who consumed over 600 mg a day. The results showed that the group that consumed over 600 mg a day showed an increase in the value of their bone's hardness. This 'comparison' is the third perspective, and the keyword of this lesson, 'Make a comparison'. Comparing a piece of information with another is extremely significant in order to deepen your understanding about that information. Let's take a look at the study results again. It says that when they compared a group that consumed less than 400 mg of calcium a day with a group that consumed over 600 mg, the test results of the group that consumed over 600 mg showed an increase in the value of bone density. By making a comparison between two groups that consumed different amounts, they got a rough idea of how much calcium a person should consume each day.

Client I see.

Nurse According to the "Guideline for Prevention and Treatment of Osteoporosis", this is the amount that is recommended.

Client 800 mg of calcium is the target amount.

Nurse In order to consume this much through food, you must eat this amount.

Client Milk, tofu, natto…… Eating this much every day isn't easy…… Besides, people have likes and dislikes…… Can't we consume it through supplements?

Nurse It's true that there are various ways to consume nutrients. But there's one thing you must be conscious of, but I'll cover that in the next lesson.

Client Okay, I look forward to it.

Consider both aspects

Nurse Consider both aspects

Nurse Previously, we talked about making comparisons in order to understand a piece of information.

Client We found out that the targeted daily intake of calcium is 800 mg. But if we were to consume that through food, you have to drink milk, eat tofu and natto…… It's not easy to consume that much every day. Besides, people have likes and dislikes. So I thought, what about consuming it through supplements?

Nurse Right, supplements are one method. But what we need to consider here is the final perspective when understanding information, 'Consider both aspects'.

Client What do you mean by 'Consider both aspects' ?

Nurse Everything has a 'benefit' which is an advantage and a 'risk' which poses danger. It's important to compare the benefits and the risks when evaluating something. Like we discussed earlier, consuming calcium through supplements may lead to an increase in bone density. This is the 'benefit'.

Client Then what's the risk?

Nurse Let me introduce a study result. A follow-up study was conducted on approximately 400,000 middle-aged men and women in the United States. The result showed that the ratio of people who died from heart disease was about 1.2 times higher among people who consumed calcium through supplements compared to people who didn't.

Client What!?

Nurse It's said that there are various causes for heart disease, but at any rate, this phenomenon wasn't seen among people who consumed calcium through food. Based on this result, nowadays, it's said that we must be careful that our daily intake of calcium through supplements should not exceed 500 mg.

Client Maybe the best way is to consume it through a balanced meal……

Nurse Just like you should watch out for the side effects of supplements, everything has a good aspect and a bad aspect. That's why you must be conscious of both aspects if you want to evaluate correct information.

Client I clearly understand that.

Nurse We've learned about the four aspects in our lessons. Whenever you're accessing health information, remember these aspects and be sure to always ask yourself, "What's the evidence?"

Client I'll do my best.

Nurse Next time, we'll put what we've learned so far to practical use.

Client Client Understood. I look forward to it.

'Be conscious of the total number' and 'Make a comparison' Part 1

- Nurse 'Be conscious of the total number' and 'Make a comparison' Part 1.
- Nurse So far, we've learned about the four perspectives that are important when examining evidences of information.
- Client Evidence is significant in order to understand health information correctly.
- Nurse That's right. Of the four perspectives, this time, we'll focus on 'Be conscious of the total number' and 'Make a comparison' and learn how they can help you understand the information.
- Client Okay.
- Nurse Then let's begin. Let's say you find this piece of information. "In this country, it is said that people who develop osteoporosis are those over the age of 40 and will amount to 13 million people. It's common among women and the more you age, the more the risk increases."
- Client 13 million people seems like quite a lot…… It's more common among women and the more we age, the more riskier it becomes? I'm worried that I'm included in that.
- Nurse I understand that when you look at a number related to a disease, you feel like it's about you and feel afraid. Let's begin by figuring out what this means.
- Client Using the perspectives that we discussed earlier?
- Nurse That's right. Let's begin with the first perspective. Think about the total number, in other words, the denominator. What's the first thing we must consider?
- Client We must figure out how much percentage 13 million people accounts for among the total number of people.
- Nurse That's right. Let's take a look at a data that studied Japanese people over 40-years old. Pay attention to this part. You can tell that 13 million people only account for 20% of the total number. So not every Japanese person over the age of 40 is developing osteoporosis, but that doesn't mean that this percentage is small. Let's figure out what this number '20%' means. Which perspective should we consider this number from?
- Client Let's see…… Make a comparison?
- Nurse Correct. Next, let's compare this to the data of other diseases. This is also a study data of people over 40-years old who have high blood pressure.
- Client It seems people with high blood pressure accounts for about 10% of the total number of people.
- Nurse And this is the percentage of people that suffered strokes.
- Client This time it's about 2% of the total number of people.
- Nurse Now let's compare each data side by side.
- Client It seems the percentage of osteoporosis is a bit higher than other diseases.
- Nurse That's right. Based on this comparison data, next time, we'll examine the data of 13 million people again using a different comparison.
- Client Okay. I look forward to it.

'Be conscious of the total number' and 'Make a comparison' Part 2

- Nurse 'Be conscious of the total number' and 'Make a comparison' Part 2.
- Nurse In the previous lesson, based on a data, we found out that of all the Japanese people over 40-years old, the number of people who develop osteoporosis is a bit higher than those who have high blood pressure.
- Client They accounted for about 20% of the total number.
- Nurse This time, instead of looking at the total number, let's compare the data by gender. What does this data tell us?
- Client Overall, it's 20%, but by gender, while it's about 10% for men, it's nearly 30% for women.
- Nurse Right, according to this data, the number is about three times higher among women. Next, let's compare it by age. Look at this data.
- Client The more older you get, the more higher the percentage becomes……
- Nurse That's right. Overall, it was about 20%, but that doesn't mean it's 20% in all age groups. You can tell that the percentage is low among younger people, but the more you age, the more higher it gets. So far, we used a piece of information that stated "In this country, it is said that 13 million people will develop osteoporosis. It's common among women and the more you age, the more the risk increases." and analyzed it from two perspectives: 'Be conscious of the total number, the denominator' and 'Make a comparison'. Let's summarize what we've discovered.
- Client Okay.
- Nurse First of all, 13 million people accounts to about 20% of the Japanese people over the age of 40. This number is a bit higher compared to people with high blood pressure. It's 10% of the men, but 30% of the women. The percentage is three times higher among women. And the more older you get, the more higher that percentage becomes. This is what we've discovered. Compared to the first time you saw this information, has your impression changed?
- Client Well…… At first, I felt a vague anxiety. But now that I know it's 20% of the total number of people and the more older women get, the more higher the risk gets, I don't have to be overly anxious about it because I'm still in my 50's. I feel a bit relieved. But I've also learned that since I'll be aging, it's important to take preventive measures.
- Nurse I see. When you see a number related to diseases, instead of aimlessly believing that number, if you examine the evidence and figure out the meaning, you'll be able to deepen your understanding of that piece of information.
- Client Yes, I've realized that.
- Nurse By deepening your understanding, you'll be able to make a correct judgement about whether or not that health information is suitable for you. And as I've been repeatedly saying, always be conscious of these four perspectives when examining evidence.
- Client I understand.
- Nurse This will conclude my lesson. It will bring me joy if what we've learned helps you find health information that's correct and suitable for you in the future. Thank you very much.
- Client Thank you so much.

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