In this next module, we're going to talk about the discussion section of your manuscript.,The discussion section, in,terms of the writing, gives you the most freedom of any of the other written sections.,It gives you the most chance to put your good writing on display.,Of course, since there is so much flexibility, it is also the most challenging to write.,So follow your rules for good writing.,All the right rules that we've been talking about in this class.,And you'll really shy in your discussion section, remember that we represented the introduction section as a cone that went from broad to narrow.,In the discussion section, you are inverting that cone.,The introduction section ends with the question asked.,The discussion section starts by answering that question.,So you start with the most narrow piece of information, and then you brought in.,You start by answering the question asked.,Then you're going to support your answer with your own data and with other people's data from the literature.,So you give all the lines of evidence say how your results fit into the context of the literature, then you're going to defend your conclusions.,This is the obligatory limitations section of your discussion.,You want to anticipate the criticisms that readers may have and defend your conclusions against these criticisms.,And then at the end, you're going to go very broad.,You want to give the big picture implications of your research.,In other words, the discussion section should impart what your results mean, and why should anyone care.,This last point is important. You need to make sure that readers outside of your immediate niche area in science can understand why your study matters.,You have to make them care.,Here's one way of organizing the discussion.,Uh, it's a bit disciplined, specific exactly what goes in that discussion, but here are the general elements that you should have.,You want to start the discussion section with something like, we found that, and then you answer the question that you proposed at the end of the introduction section. You're going to explain what the data mean at a very high level, and you want to clearly in explicitly state if the findings are novel, you may also have some key secondary findings.,Oftentimes, when we do a study to find one thing, we also find some other interesting findings in the process.,So you might state those other key secondary findings.,After you give all of your findings, you're going to put it in context.,Here's where you can get into some detail that I didn't want you to put in your introduction section.,You can give possible mechanisms or pathways that might explain what you're seeing in your data.,If your research was on human subjects, you might talk about the potential underlying biological pathways.,You also compare your results with other people's results.,How do your results fit with the existing literature?,Do your results confirm others results, or are they contrasting?,Then, as you're getting towards the end of your discussion, you need to have at least one paragraph on strengths and limitations.,I'll talk a little bit more about the limitations paragraph in a bit here.,You also want to spend some time saying what's next?,Here's where you can talk about results that need to be confirmed in future studies, or unanswered questions or future directions.,Then you want to give this So what the implicate, speculate or recommend?,This is where you're saying, hey, why should anybody care about my findings?,If you're doing something in the basic sciences, tie it to humans.,Tell your readers why they should care.,And then it's nice in the discussion section to have one paragraph at the end where you have a strong conclusion.,Some journals have a separate section for a conclusion, but if your journal doesn't,, just wrap up your discussion section by restating your main findings and giving some kind of final taco message for your readers, here are some tips on the discussion section.,Again, showcase your good writing. Use the active voice.,Tell it as much as you can like a story. Start and end with the main finding.,The 1st sentence of your discussion section should be something like, we found that were you given answer to the main question, aim or hypothesis of the paper?,And then you want to wrap up your discussion section by restating that main finding.,It's OK to repeat it, because you want to emphasize it to your reader ul in your discussion section that you don't travel too far from your data.,Near the end of the discussion, it's ok to give some speculation, big picture implication.,It's ok to step away from your data and speculate a bit towards the end.,But when you're drawing your main conclusions, you need to make sure that you are telling the reader what you actually found, not what you hoped to find.,This is one of the reasons that I like to look at tables and fingers.,1st before I read anybody's discussion section, I want to make my own judgment about what I think the data show.,Authors sometimes see only what they want to in their data, so make sure you're not reaching too far from your data.,Another common problem is that sometimes authors will start,discussing things that they don't have data on, so they'll go for on for paragraphs about something that they didn't even measure in their study.,So again, don't travel too far from your data.,Another key tip on discussion sections is pay attention to the limitation section.,One major mistake authors make in the discussion section is that they don't spend enough time crafting a good strengths and limitation section.,They often just write whatever generic limitations they can think of.,But the mark of a good paper for me is when authors have anticipated my criticisms and concerns.,As I'm reading a paper, I'm thinking about all the potential holes in it.,If I then get to the limitation section in that paper, and the authors proceed to address all my major concerns.,I'm impressed, even if they don't have a good answer for those limitations, just the fact that they recognize them goes a long way to improving my confidence in this study. That's the mark of a good paper for me, because what you see more often is that authors write the limitation section too generically.,They just throw in a bunch of non specific boiler plate limitations that could apply to any study, ,and they fail to acknowledge the limitations that are most critical to the validity of this specific study.,If you can anticipate what the reader will criticize in your paper, ,if you can anticipate that and beat them to the punch line, that goes a long way to increasing reviewers and editors confidence in your study.,And then finally, the last thing on the discussion section is that make sure your take home message is clear and consistent.,Again, I think this gets to that oftentimes we want the data to show one thing, we were hoping for, a certain result, ,and the data don't quite show what we want them to but we still are torn, and we want to tell our reader that the data show that we still believe in the hypothesis, and we end up waffling.,So make sure that you're clear inconsistent about your take home message.,All right, now I'm going to give you some example discussion sections.,So I've been using this academic spam study.,I'm going to use it again here.,It's quite short the discussion section, but it follows the format of a typical discussion well, so it makes a good example.,Im just going to remind you that at the end of the introduction section of that paper, they gave the objectives of their study.,In the academic spam study, we investigated the amount relevance content and smpressibility of academic spam emails.,So IM gonna be looking for answers to each of those questions about amount, relevance content and suppressibility at the beginning of the discussion section.,So here's their discussion section. They start with the academic spam.,Study shows that mid career academics in New Zealand receive, on the average, spam invitations each day to publish papers in the ten conferences.,So we learn that the amount is 2.1 invitations per day.,If you keep reading along here, you'll also learn that 16% of spam invitations are duplicates, they found. And then in terms of relevancy, they found that 83% were of little or no relevance to the recipient.,And in terms of suppressibility, the authors found that these emails are hard to suppress.,So they answered basically all of the questions that they set out to answer right there in the 1st paragraph of the discussion section.,Then they jump into the strengths and weaknesses of, uh, the study.,I usually would put this a little bit closer to the end, but it's okay to the BMJ Christmas Sister.,So they went right into, um, some potential strengths and weaknesses.,They're trying to be a little bit funny here.,I won't read through it, but I'll leave it there for you if you want to.,So we see our obligatory limitations paragraph.,Then we get the context with other studies.,They talk a little bit about comparison with other studies.,Again, they're being a little tongue in cheek and a little funny here.,I'll leave that for you to read on your own.,And then we get the final paragraph, implications and future research, the kinds of things that I've told you you should have at the end of your discussion section.,Again, they're trying to be a bit funny.,I'll just read through it here.,What they're trying to do here is to suggest that there should be future research on academic spam.,And then they write it in the format.,They write it to mimic or mock academic spam.,So they're trying to sound like a spam email.,Noble and prestigious colleagues, we are enthralled by prospect to notice the grammar of novel research focus of academic spam.,So we make a proposition to improve enlightenment of evidence.,We wish greatly to start journal and convene scientific meeting that ,focus on academics BAM so illustrious colleagues can form interdisciplinary webs of scientific rigor to advance knowledge.,Maybe we will christen,soon Journal of Advances in Interdisciplinary academic Spam and launch with alacrity the 1st annual international symposium.,Once we identify publisher in conference organizer, we will,email academics to join this exciting novel adventure. Honorable colleague, stay tuned often. In the spam, there's a lot of exclamation points like that, so they're trying to be funny and sound like,a or copy a make fun of email.,Spam email. So that's the entire discussion section.,Is just four sections or four paragraphs long, but it has all the elements of a typical discussion section.,So well, now we'll jump into a non BMJ Christmas issue example.,So, uh again, before I can show you the discussion section, I need to show you the end of the introduction from that same paper.,So this was a study looking at low fat diets versus low carb diets.,It was a hot topic. A few years back, they performed a study designed to test the hypothesis that severely obese subjects who have other problems, ,either diabetes or pre diabetes, would A, have a greater weight loss, and B, would have that weight loss without detrimental effects on heart uh health?,Um? Well, on a carb restricted diet compared with a low fat diet, so they think that the carb diet might help with weight loss.,But they also want to check and make sure that when you're eating a lot of, remember, ,this diet is a lot of steak and cheese, that when you're eating a lot of steak and cheese, that it's not having some negative effects on overall heart health, even if they lose weight.,So those were the questions asked in the introduction section.,So we are hoping that the beginning of the discussion section starts with answers to those questions.,Indeed, we get to the discussion section.,The 1st sentence of the 1st paragraph said, ,we found that severely obese subjects with a high the prevalence of diabetes, and pre diabetes lost more weight in a six month period on a carb restricted diet than on a fat and calorie restricted diet.,So in that very 1st sentence they started with, we found that, and then they answer the the question, A, the 1st question, in their introduction section.,I am only going to highlight certain parts of their discussion, just because, of course, discussions are long, so I'm not going to present the entire discussion. But that's the start of the 1st paragraph.,The start of the 2nd paragraph answers the question to be the 2nd.,Main question of this study was whether the low carbon diet is bad for your cardiovascular health because you're eating too much steak and cheese.,And they found that it wasn't.,Subjects in the low carb group had greater decreases in tricoliseride levels.,They un did subjects in the low fat group.,And non diabetic subjects on the low carb diet had greater increases in insolent sensitivity.,That's something that's good. And subjects with diabetes had a greater improvement in chlysimic control.,So now they've answered question B Not only did the low carb diet have no detrimental effects on hard health, ,the people in the low fat diet actually seem to have done better in terms of heart health.,Their lipid levels are good, their insulin sensitivity is good.,Again, I'm going to just highlight certain parts of this discussion.,They then go on, which the part I'm not going to show you.,they go on to put their findings in the context of previous studies.,For time sake, I'm not going to go into those.,But I'm going to jump to paragraph four, because I want to jump to that limitations paragraph to just highlight that.,I think they did a good job here of pointing out important limitations.,One thing is that many participants in the study were taking other drugs.,In addition to doing the weight loss program, they were taking medications to lower cholesterol and lower blood pressure, and this could definitely affect the results of the study.,Obviously that's gonna affect whether their their lipids look bad or good.,So the authors bring up that limitation, and they even tell us that they addressed that limitation by doing analyses where they excluded subjects on these medications.,And it appears that the results were robust.,Down in the 6th paragraph, they also tell us about another key limitation Many participants dropped out.,The attrition was high, of course, if not many people could follow the diet, it's really hard to draw conclusions. The diets just may be non starters for a large number of people.,So I think that was also an important limitation that they did address well.,And this discussion section was seven paragraphs long.,Just to give you a sense of how long they might be, here's the last paragraph.,Paragraph seven. Notice that they restate their key findings.,In the last paragraph, they restate their answers to the two questions they were asking.,Taken together, our findings demonstrate that this population lost more weight during six months on a carb restricted diet than on a loaf head diet.,So that was answered. A question A The Carber restricted diet led to greater improvements in insolent sensitivity that were independent of weight loss.,Wasn't just because they lost more weight and a greater reduction in triglyceride levels in subjects who lost more than 5% of their weight.,So they've just answered a question B they've just restated what they said in the opening two,paragraphs. But you want to sum up, because that's the, really, that's the,big take messages of the study, the answers to the questions asked.,Then they go on to give some other big picture things.,They give a caution. They want to say, this doesn't mean that everybody should rush out and go on a low carb diet,, because in the grand scheme of things, the weight loss was still pretty small, even in the low carb group.,Also, there was a high dropout rate, which means the diet is hard to stick to.,So based on all that, they end with a take home message to physicians.,This study proves a principle and does not provide clinical guidance.,Guidance given the known benefits of fat restriction.,Future studies evaluating long term cardiovascular outcomes are needed before a car restricted II can be endorsed.,They don't want to overstate their findings.,They're saying, there are still some questions to be answered, and we don't want a to translate our findings yet into an actual clinical recommendation.,So they ended here with a restatement of their main findings, but then kind of a caution, a big picture caution. All right, one more example. This was the paper comparing men and women with regard to self citations.,I'll remind you that what was at the end of their in introduction section.,Their goals were to compare the number of self citations in the mean versus women.,And they also wanted to look as sort of a secondary aim to trends in this gender gap over time.,So they ended the introduction with their statement of purpose, what they're trying to do.,So now we're hoping that they start the discussion section telling us what they found with regards to those two things.,Um, the discussion actually starts with a one sentence recap of the size of the study.,I think they are trying to really emphasize the study's major strength here.,It was a much bigger study than anybody else has done.,But then in the 2nd sentence, they answer the questions asked.,So one in the last two decades, for every seven self citations by men, women cited themselves four times, a ratio of 1.7.,So they how much, how big was the gender gap?,They found a gender gap of a ratio of 1.7.,And what about the trends over time?,This ratio rose sharply in the 1960s and 1970s, and then sort of platt hood in the 1980s.,So they start their discussion with their main findings.,Um, I'll just point out that they had some secondary findings.,They were weeding through a big database here, they found some other interesting things.,There was wide variation about self citation in different fields.,Uh? It turns out that almost 10% of all citations or self citations, which I found interesting and surprising, that's, I thought, a big number.,And then they give us an the gender gap in terms of in absolute terms.,And the statistic is given in a slightly different way.,So these are some secondary findings.,So remember that sometimes after the primary finding, you're gonna give some important, in interesting secondary findings.,Then the authors launch into possible mechanisms.,Why might men self promote more than women?,One possibility is that maybe self promotion seems um more acceptable for men than women in our society. So I'm not, again, not going to read through all of this.,But here are some possible reasons that might explain the gender gap that the authors are seeing.,Later we get to the limitations, the main limitation sided is that the authors can't say definitively why they are seeing this difference.,They're pretty confident that that the difference is real.,There isn't a lot of they've looked at a big data set.,They're pretty confident that it's that the finding is done well, but they can't really say why.,They can't claim to know the causal mechanisms.,They're putting that as the their big limitation.,And then the authors give several paragraphs of implications.,Im not going to put them all in the slide, but ill show you the last paragraph, so the final paragraph ends with their main take home message.,Um Historically, women's academic contributions have been undervalued,, and the fact that self citations are more prominent in men than women may be one or more reason to think that maybe metrics that ,involve citations shouldn't be the only way that we're measuring scientific impact.,So this is really giving the big picture implication of their work.,better at self promotion and do more self citation, maybe we should be looking at metrics other than citations when it comes to academic hiring and promotion.,So maybe giving less way to citations could be one strategy for reducing gender equity in the academic community.,So they're ending here with a big picture.,One last thing I want to just point out.,I was reading a discussion once, and I this was the 1st, two sentences, or three sentences of the discussion section.,So don't start your discussion like this.,It started with this meta analysis is subject to a number of limitations.,So don't start your discussion section with the limitations.,Start with the we found, or this study shows, and then bury the,limitations section several paragraphs down. Finally, similar to methods and results In introduction, you're going to use the the rule for verb tenses. You're going to use the past tense when referring to things that are already completed, study details, results, analyses and background research.,So we found that subjects may have experienced, miller Adel found, ,But you're going to use the present tense when talking about what the data suggest, uh, because the data are still suggesting that.,So the greater weight loss suggests the explanation for this difference is not clear.

在下一个模块中，我们将讨论你的手稿的讨论部分。就写作而言，讨论部分为你提供了其他任何书面部分中最大的自由度。它使您有最大的机会展示自己的出色作品。当然，由于灵活性如此之大，因此写作也是最具挑战性的。因此，请遵循你的写作规则，以及我们在本课上一直在谈论的所有规则，你将在讨论部分大放异彩。请记住，我们把介绍部分描绘成一个从宽到窄的圆锥体。在讨论部分中，你正在反转那个圆锥体。介绍部分以提出的问题结尾。讨论部分首先回答这个问题。因此，你从最狭窄的信息开始，然后扩大范围。你首先要回答所问的问题，然后你要用自己的数据和文献中其他人的数据来支持你的答案。因此，你要提供所有证据，说出你的结果如何融入文献的背景。然后，你要为自己的结论辩护。这是您讨论的强制性限制部分。你想预测读者可能会受到的批评，并捍卫自己的结论免受这些批评。然后最后，你会走得很广。你想给出你的研究的大局意义。换句话说，讨论部分应该说明你的结果意味着什么，以及为什么有人会关心。最后一点很重要。你需要确保你的科学领域以外的读者能够理解为什么你的研究很重要。你必须让他们关心。这是组织讨论的一种方式。具体到底讨论了什么，这有点纪律严明，但以下是你应该具备的一般要素。你想用类似的东西开始讨论部分，我们发现了。然后你回答你在介绍部分末尾提出的问题。你将在非常高的层面上解释这些数据的含义，你想清楚而明确地说明这些发现是否新颖。你可能还有一些重要的次要发现。通常，当我们进行研究以发现一件事时，我们还会在这个过程中发现其他一些有趣的发现。因此，你可以陈述其他重要的次要发现。在你给出所有发现之后，你要把它放在上下文中。在这里，你可以详细了解一些我不想让你在介绍部分中写的细节。你可以给出可能的机制或路径来解释你在数据中看到的内容。如果研究是针对人类受试者，你可能会谈论潜在的潜在生物学途径。您还可以将自己的结果与其他人的结果进行比较。您的结果如何与现有文献相吻合？你的结果是否证实了其他人的结果，还是他们形成了对比？然后，当你的讨论快要结束时，你需要至少有一段关于优势和局限性的段落。稍后我将在这里多谈限制段落。你还想花点时间说下一步会发生什么。在这里，你可以谈论需要在未来的研究中确认的结果，或者悬而未决的问题或未来的方向。然后，你想给出这个，比如什么、暗示、猜测或推荐。这就是你的意思，嘿，为什么有人要关心我的发现。如果你在基础科学领域做某事，那就把它与人类联系起来，告诉你的读者为什么他们应该关心。然后，在讨论部分最后有一段话可以给你一个有力的结论，这真是太好了。有些期刊有单独的章节作为结论。但是，如果你的日记没有，那就结束你的讨论部分，重申你的主要发现，然后给读者一些最后的回家信息。以下是讨论部分的一些提示。再说一遍，展示你的好写作，用主动的声音，尽可能多地讲故事。从主要发现开始和结束。你的讨论部分的第一句话应该是这样的，我们发现，你在那里给出论文的主要问题、目标或假设的答案。然后你想通过重申主要发现来结束你的讨论部分。可以重复一遍，因为你想向读者强调一下。在讨论部分中要非常小心，不要离数据太远。在讨论快要结束时，可以给出一些猜测，暗示大局。离开你的数据，在快要结束时进行一些猜测是可以的。但是，当你得出主要结论时，你需要确保你告诉读者你实际发现了什么，而不是你希望找到的东西。这就是我喜欢在阅读任何人的讨论部分之前先看表格和数字的原因之一。我想对我认为的数据显示的内容做出自己的判断。作者有时只能在数据中看到他们想要的内容。因此，请确保距离数据不太远。另一个常见的问题是，有时作者会开始讨论他们没有数据的事情。因此，他们会继续写一段关于他们在研究中甚至没有测量过的东西的段落。因此，再说一遍，不要离你的数据太远。讨论部分的另一个关键提示是注意限制部分。作者在讨论部分犯的一个主要错误是，他们没有花足够的时间来撰写一个好的优势和局限性部分。他们通常只写出他们能想到的任何通用限制。但是，对我来说，一篇好论文的标志是作者预料到了我的批评和担忧。当我读论文时，我正在思考其中的所有潜在漏洞。如果我随后进入那篇论文的限制部分，然后作者继续解决我的所有主要问题，那我就会留下深刻的印象。即使他们对这些限制没有很好的答案，但只要他们认识到这些限制，就能大大提高我对研究的信心。这对我来说是一篇好论文的标志。因为你更经常看到的是，作者写的限制部分太笼统了。他们只是提出了许多可能适用于任何研究的非具体锅炉板限制。而且他们没有承认对这项具体研究的有效性最为关键的局限性。如果你能预见读者会在你的论文中批评什么，如果你能预见到这一点，并击败他们，那将大大提高审稿人和编辑对你的研究的信心。最后，讨论部分的最后一件事是，确保你的带回家信息清晰一致。再说一遍，我认为这通常是我们希望数据显示一件事，我们希望得到一定的结果。而且数据并不能完全显示出我们想要他们做什么，但我们仍然陷入困境。我们想告诉读者，数据表明了这一点。我们仍然相信这个假设，最后我们摇摆不定。因此，请确保你对带回家的信息清晰且一致。好吧，现在，我要给大家一些示例讨论部分。所以我一直在使用这个学术垃圾邮件研究，我将在这里再次使用它。讨论部分很短，但它很好地遵循了典型讨论的格式，所以它就是一个很好的例子。我只想提醒你，在那篇论文的导言部分的最后，他们给出了研究的目标。在学术垃圾邮件研究中，我们调查了学术垃圾邮件的数量、相关性、内容和抑制性。因此，我将在讨论部分的开头寻找有关数量、相关性、内容和可抑制性的每个问题的答案。因此，这是他们的讨论部分，他们从学术垃圾邮件研究开始，该研究表明，新西兰职业生涯中期的学者平均每天收到2.1封垃圾邮件邀请，要求他们发表论文和参加会议。因此，我们得知金额为每天2.1次邀请。如果你继续阅读这里，你还会发现16％的垃圾邮件邀请是他们发现的重复邀请。然后就相关性而言，他们发现83％的人与收件人关系不大或根本没有关系。就抑制性而言，作者发现这些电子邮件很难被压制。因此，他们基本上回答了讨论部分第一段中他们打算回答的所有问题。然后，他们开始研究这项研究的优缺点。我通常会把它放在离结局更近一点的地方，但没关系。因此，他们在《英国医学杂志》的圣诞节问题上直接谈到了一些潜在的优势和劣势。他们想在这里变得有点滑稽，我不会通读但如果你愿意的话我会把它留给你的。因此，我们看到了我们的强制性限制条款。然后我们了解了其他研究的背景，他们稍微谈了与其他研究的比较。再说一遍，他们有点嘲笑，这里有点滑稽。我把它留给你自己读一读。然后我们得到最后一段，启示和未来的研究，我告诉你的那种话，你应该在讨论部分的结尾写下来。再说一遍，他们想变得有点滑稽，我就在这里通读一下。他们想在这里做的是建议将来应该对学术垃圾邮件进行研究，然后他们以这种格式写出来。他们写这封信是为了模仿或模拟学术垃圾邮件，所以他们想听起来像一封垃圾邮件。诺贝尔和著名的同事，我们对注意到学术垃圾邮件的语法和新颖研究重点的前景所吸引，因此我们提出了改善证据启蒙的主张。我们非常希望创办日记并召开以学术垃圾邮件为重点的科学会议，这样杰出的同事就可以建立跨学科的网络，具有科学严谨性，以增进知识。也许我们很快就会命名为《跨学科学术垃圾邮件进展杂志》，并迅速启动第一届年度国际研讨会。各位同事们，一旦我们确定了出版商和会议组织者，我们将向学者发送电子邮件，邀请他们加入这场激动人心的新奇冒险之旅，敬请期待。通常在垃圾邮件中会有很多这样的感叹号。因此，他们想变得有趣，听起来像或复制，取笑电子邮件，垃圾邮件。这就是整个讨论部分，只有四节或四段长，但它包含了典型讨论部分的所有元素。因此，我们现在将进入一个非英国医学杂志的圣诞节问题示例。再说一遍，在我向你展示讨论部分之前，我需要向你展示同一篇论文的导言的结尾。因此，这是一项针对低脂饮食与低碳水化合物饮食的研究。因此，几年前，这是一个热门话题。他们进行了一项研究，旨在检验这样的假设，即有其他问题（无论是糖尿病还是糖尿病前期）的严重肥胖受试者的体重减轻幅度更大。而且b，与低脂饮食相比，限制碳水化合物的饮食可以减轻体重，而不会对心脏健康产生不利影响。因此，他们认为碳水化合物饮食可能有助于减肥，但他们也想检查并确保当你经常吃碳水化合物时，请记住这种饮食中含有大量的牛排和奶酪。当你吃很多牛排和奶酪时，即使它们减肥，也不会对整体心脏健康产生一些负面影响。因此，这些是介绍部分中提出的问题。因此，我们希望讨论部分的开头能从这些问题的答案开始。实际上，我们进入了讨论部分。第一段的第一句话说，我们发现，糖尿病和糖尿病前期患病率高的严重肥胖受试者在六个月内通过限制碳水化合物饮食比限制脂肪和卡路里饮食在六个月内减轻的体重更多。因此，在第一句话中，他们一开始就发现了这一点，然后他们回答了问题a，这是他们介绍部分的第一个问题。我只想重点介绍讨论的某些部分，因为当然，讨论很长，所以我不打算介绍整个讨论。但这是第一段的开头，第二段的开头回答了b的问题。该研究的第二个主要问题是，低碳水化合物饮食是否因为你吃了太多的牛排和奶酪而对心血管健康有害。他们发现事实并非如此，低碳水化合物组的受试者甘油三酯水平的下降幅度大于低脂组的受试者。低碳水化合物饮食的非糖尿病受试者的胰岛素敏感性增加幅度更大，这是件好事。糖尿病受试者的血糖控制有了更大的改善。因此，现在他们已经回答了问题b。低碳水化合物饮食不仅对心脏健康没有不利影响。实际上，低脂饮食的人在心脏健康方面似乎做得更好。他们的脂质水平良好，胰岛素敏感性良好。再说一遍，我将重点介绍本次讨论的某些部分，然后继续介绍我不会向你展示的部分，这些部分将他们的发现置于先前的研究背景下。为了时间考虑，我不打算详细介绍这些内容，但我要跳到第4段，因为我想跳到那个限制段落来掩盖我认为他们在指出重要限制方面做得很好。有一点是，这项研究的许多参与者除了进行减肥计划外，还在服用其他药物。他们正在服用降低胆固醇和降低血压的药物。这肯定会影响研究的结果。显然，这将影响他们的脂质看起来是坏还是好。因此，作者提出了这个局限性，他们甚至告诉我们，他们通过分析来解决这个局限性，他们将服用这些药物的受试者排除在外，结果似乎是可靠的。在第六段中，他们还告诉我们另一个关键限制。许多参与者退学了，自然减员率很高。当然，如果没有多少人能遵循饮食习惯，那么很难得出结论。对于很多人来说，饮食可能不是开胃菜。因此，我认为这也是一个重要的限制，他们确实很好地解决了这个问题。这个讨论部分长达七段，只是为了让你大致了解它们可能持续多长时间。这是最后一段，第七段。请注意，他们在最后一段中重申了他们的主要发现。他们重申了对他们提出的两个问题的回答。总而言之，我们的研究结果表明，与低脂饮食相比，这些人群在六个月内通过限制碳水化合物饮食减轻的体重更多。所以这就是问题a的答案。限制碳水化合物的饮食使胰岛素敏感性得到更大的改善，这与减肥无关，而不仅仅是因为它们减轻了更多的体重。而且，体重减轻超过5％的受试者的甘油三酯水平会进一步降低。所以他们刚刚回答了问题b。他们刚刚重申了他们在开头两段中所说的话。但是你想总结一下，因为这才是真正的，那是研究中回答所提问题的重要信息。然后他们继续给出其他一些大局的事情，他们谨慎行事。他们想说，这并不意味着每个人都应该清洗干净，继续低碳水化合物饮食，因为在宏伟的计划中，即使在低碳水化合物群体中，减肥幅度仍然很小。此外，辍学率很高，这意味着饮食很难坚持，因此，基于所有这些，他们最后向医生传达了一条带回家的信息。该研究证明是原理，不提供临床指导。鉴于限制脂肪的已知益处，在认可碳水化合物限制饮食之前，还需要进行评估长期心血管结果的研究。他们不想夸大自己的发现。他们说，还有一些问题需要回答，我们还不想将我们的发现转化为实际的临床建议。因此，他们最后重述了主要发现，但随后还是谨慎行事，从大局上谨慎行事。再举一个例子，那篇论文比较了男性和女性的自我引用。我要提醒你，在他们的介绍部分的最后，他们的目标是比较男性和女性的自引次数，他们还想从次要的目标来看待这种性别差距随着时间的推移而出现的趋势。因此，他们在介绍结束时陈述了他们想要做的事情。因此，现在，我们希望他们能开始讨论部分，告诉我们他们对这两件事的看法。实际上，讨论从一句话回顾研究的规模开始。我认为他们正试图在这里真正强调这项研究的主要优势。这是一项比其他人所做的要大得多的研究。但是在第二句话中，他们回答了所提出的问题。因此，在过去的二十年中，男性每七次自我引用，女性就会引用四次。比率为1.7。那么，性别差距有多大？他们发现性别差距为1.7，那么随着时间的推移趋势呢？这一比例在1960年代和1970年代急剧上升，然后在1980年代有所停滞。因此，他们从主要发现开始讨论。我只想指出，他们有一些次要发现。他们正在这里整理一个庞大的数据库。他们发现了其他一些有趣的东西。不同领域的自我引用差异很大。事实证明，在所有引文中，将近10％是自我引用，我觉得这既有趣又令人惊讶，我认为这是一个很大的数字。然后他们给出了绝对值和统计数据方面的性别差距，给出的方式略有不同。所以，这些是一些次要发现。因此，请记住，有时在主要发现之后，你会给出一些重要而有趣的次要发现，然后作者开始研究可能的机制。为什么男性比女性更能自我宣传？一种可能性是，在我们的社会中，男性似乎可以接受自我晋升而不是女性。因此，我不打算通读所有这些，但这里有一些可能的原因可以解释作者所看到的性别差距。稍后，我们将探讨局限性。引用的主要限制是，作者无法明确地说出他们为什么会看到这种差异。他们非常有信心区别是真实的。他们研究了一个大数据集。他们非常有信心这一发现做得很好，但是他们真的无法说出为什么。他们不能声称知道因果机制。他们把它当作最大的局限性，然后作者给出了几段含意。我不会把它们全部放在幻灯片中，但我会给你看最后一段。因此，最后一段以他们的主要带回家信息结尾。从历史上看，女性的学术贡献一直被低估。而且，男性中的自我引用比女性更为突出，这也许是认为涉及引文的指标不应该是我们衡量科学影响的唯一方法的又一个理由。因此，如果自我引用是的话，这确实给出了他们工作的大局含义，如果男性更擅长自我宣传，做更多的自我引用，那么自我推广。在学术招聘和晋升方面，也许我们应该考虑引文以外的指标。因此，也许减少对引文的重视可能是降低学术界性别平等的一种策略。所以，他们以大局结尾。我想指出的最后一件事是，我曾经读过一篇讨论，这是讨论部分的前两句或三句话。所以，不要这样开始讨论。它始于这种荟萃分析，但存在许多局限性。因此，不要在讨论部分开始时受到限制。从我们发现或本研究显示的内容开始，然后将限制部分向下掩盖几段。最后，与方法、结果和介绍类似，你将使用动词时态的规则。在提及已经完成的事情、研究细节、结果、分析和背景研究时，你将使用过去时。因此，我们发现，受试者可能经历过，米勒等人发现。但是在谈论数据所暗示的内容时，你将使用现在时态，因为数据仍然表明了这一点。因此，减肥幅度越大就说明了。这种差异的解释尚不清楚。可能的解释包括。所有这些都将使用现在时。