Oral Health Matters - Ep 2

Oral health challenges in the Global South

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Richard Watt 00:04
Welcome to Oral Health Matters, a new podcast series that shines a spotlight on oral health and calls for it to be embraced as a key part of the global public health agenda. I'm Richard Watt, a Professor of Dental Public Health at University College London. And in this first series of our podcast, I'll be in conversation with members of the Core Research Programme, which are a team of researchers and activists from around the world who are working together to tackle the problem of oral diseases in four countries: Kenya, Colombia, India and Brazil. In this second episode, we're discussing the challenges and opportunities for oral health research in the Global South, and asking what's getting in the way of progress and what can we do about this? I'm really delighted to be joined by two colleagues in the Core Programme, Professor Regina Mutave from the Department of Dental Sciences at the University of Nairobi in Kenya, and Professor Manu Mathur from the Centre of Dental Public Health at Queen Mary, University of London, and Public Health Foundation for India. Regina is an experienced oral health researcher working in Kenya. And Manu is a leading dental public health researcher now based in the UK, but with extensive experience of working in India and across Southeast Asia. So welcome to both of you and thank you very much for joining our conversation today. Let me start off with a sort of broad question. And I'd like to ask both of you. How do you think we're doing in terms of oral health research in the Global South? Regina, how do you think things are progressing overall, in oral health research in Africa?

Regina Mutave 01:55
It has lagged behind in many aspects. It's been very difficult to get oral health research out there from African researchers. A lot of research that is happening is more driven by academia to achieve academic goals, there is not so much of research that's happening in the public health arena, which is aimed at informing and getting oral health promotion going forward, so that the public can be able to enjoy better quality of oral health. As a matter of fact, in the last three decades, the African, mostly the WHO African, region has continued to have high disease oral disease burden, we have not seen any decline. It would have been expected that it would provide interventions that could reverse the oral disease burden. But this is not happening. If this trend continues, our African region will continue to

have a high burden of oral diseases. And there seems to be a mismatch between the increasing oral disease burden and the oral health research that's being undertaken, mainly in academic institutions, while the government and ministries of health policies are not linking very well, with those research outputs from academia.

Richard Watt 03:38
Thank you, Regina, for that really helpful. Overview In Africa, let's just hear from Manu in Southeast Asia in the Indian subcontinent, how would you assess the state of oral health research in those geographical locations?

Manu Mathur 03:55
Well, this region is plagued by a rapidly rising burden of non communicable diseases. And at the same time, the region also has got a relatively high maternal and infant mortality. Burden of infectious disease and child undernutrition is also very high. And above all, 70% of the expenditure on health, public expenditure, or the expenditure on health is out of pocket, which means that if somebody has to spend 100 units of whatever currency they are having, 70 of that unit, 70% is spent from their own pocket, which is catastrophic. And public financing for health is very low. These are all things that really have an impact on the status of research on oral health in the region. And I would say that due to all these challenges, which take precedence, both in terms of priority and funding, oral health research is still in a very, very nascent stage. The focus is still on undertaking small scale epidemiological studies, with very less emphasis on implementation research or research using advanced methods, leading to limited contribution to evidence, and research is still not a very actively taught subject in dental schools. Things are changing slightly after the WHO resolution on oral health which was released in 2021. Incidentally, the chair of the committee which passed the resolution was our health minister, the health minister from India. There are many interesting developments which have taken place. And one of the most interesting development is that we have now our own Southeast Asia Strategy, regional strategy for improving oral health, which actually aims at reducing oral cancer by 33% and untreated caries of permanent teeth by 25% by 2030. There is also now an increasing recognition which has been given to implementation research. In many countries now, we are saying that they are adopting a nation by tooth brushing school tooth brushing programme. So there are a few developments which are taking place, but the approach is still undertaking uni-dimensional, cross-sectional descriptive research, which sometimes may or may not contribute to evidence.

Richard Watt 06:14
Okay, well, again, Manu, thank you for setting the scene so nicely based upon your experience and insights in Southeast Asia, Indian subcontinent etc. So it sounds like from both of your initial responses, there are some real challenges that are still facing Oral Health Research. Regina coming back to your point, that really important point that you made about the mismatch of research that is being conducted in relation to the burden of disease in the community. Why do you think that is happening? Why do you think academic researchers tend not to focus on addressing the burden of disease, but instead focus on their own interest topics, what might be the reasons behind that?

Regina Mutave 07:02

One of the biggest challenges that the African region faces, is a very low number of oral health workforce that is very poorly resourced. What that means is that if, for example, I take the Kenyan scenario, we have for every 100,000 of population, we have about three dentists that are supposed to service that population. And in some parts of Africa, it's much worse. What that means is that the clinicians are busy, really, with clinical duties, and very little priority is given to Oral Health Research. Also, there are very few training institutions, Kenya has only got two dental schools, similarly for Tanzania, and Rwanda has just one. And they're are just very few dental schools in the WHO African region, except South Africa, which has a couple of them. And of course, Egypt and Morocco. What that tells you is that finally the little personnel who may not be very well equipped, are just busy sorting the high burden of disease and leaving very little time to concentrate on research. And then there's very poor integration of oral services with the rest of the healthcare system. So that even when there are other programmes that have taken research to a higher level, for example, programmes that dealt with HIV, tuberculosis, malaria, they are well resourced, and therefore there's a lot of research going on there. But the oral health sector is very, very poorly resourced, with governments really not putting in much money, as Prof Mathur has already said, the majority of the population having oral diseases have to pay out of pocket. And this itself just makes oral health very, very poorly resourced. So there's an issue of lack of personnel, lack of proper prioritisation of oral health, lack of proper training of oral health personnel to conduct oral health research and poor integration of oral health into other health services that could probably boost it and build its research capacity.

Richard Watt 09:39
Thank you, Regina, that that does nicely set up some of the big barriers that are really limiting progress in this area. Coming back to you Manu, thinking about what you mentioned and clearly there are some similarities across Southeast Asia, Indian sub continent etcetera with Africa but there's also some huge differences. But coming back to your point Manu about dental schools and maybe thinking in particular, about India, is research a core function in dental schools or are dental schools really still very much focusing on teaching clinical students, how would you assess that?

Manu Mathur 10:17
We have more than 350 dental schools and counting as we speak. And each of these schools produce anything between 60 to 100 undergraduate, bachelors professional every year. So clearly human resource we cannot say is an issue. The issue is the way in which we impart education to our dentist. It is very, very clinical focused, it is predominantly focused on drilling and filling, prevention is not taught. When we speak about community dentistry, we are still fixated on these age old concepts of calculating the DMF index, calculating debris scores, or going into the communities and calculating the CPITN index. Whenever we start speaking on research, so although these dental colleges, most of these colleges are embedded in medical schools, they are still very, very far away in terms of governance, in terms of integration with the medical school. In 2010, when I was a novice in research, I accidentally got an opportunity to conduct an oral health research in a part of India, in southern part of India. And I went to the Dean of one of the biggest medical slash dental school in Southern India to get their permission to undertake research. The answer that was given to me was why are you doing oral health research? Why are you not doing something on infant mortality rate or maternal mortality, and the person refused to sign that document, they refused to give me a buy in to conduct this kind of research. So you know, there is this broader problem that yes, education is predominantly focused on doing

clinical things. But at the same time, fraternity is also not making efforts to integrate with the broader health system, which conducts research. So there is this lack of multi disciplinarity or transdisciplinarity, whatever you want to say. The other problem is, if you are not taught prevention, if you're not taught research methods, or if you're not taught the importance of these two things, there are different mediums which you use. So the language which a dentist uses is not the language which a policymaker wants to hear. The policymaker who is responsible for giving allocating resources or giving resources if they are not able to understand you, how will they dedicate resources to you? So over the years, there are various disease programmes which have actually simplified their language. They have learned the art of interpreting evidence in a way and disseminating evidence in a way which is palatable to people who are making decisions. In oral health fraternity, I think we still have some work to do in order to reach that stage.

Richard Watt 13:04
Okay, well, maybe we can come back to that point Manu, because that does seem like an issue about advocacy, communication, how we can address that. But coming back to both of you, I think both of you in different ways, have said one of the big barriers is the poor integration of oral health into general or public health priorities in your respective countries and systems. And that's creating oral health as a low priority. Regina, in your experience in Kenya, have we made any improvements in raising the profile of Oral Health Research? Or do you think we're still very much way behind other areas of public health?

Regina Mutave 13:53
We are just beginning to make very small baby steps in terms of making oral health come out of the closet and integrate with other health programmes and have research conducted. I want to refer back to a point that Professor Manu has brought about, the issue of communication. As oral health practitioners, there is a language code that we use and which cannot even be integrated into other policy documents. I know in Kenya, we're struggling to try and unpack some language to be able to actually collect data from community health promoters, who routinely have been collecting data for factors that promote non communicable diseases. Yet when we talk about oral health, we want to start bringing on board such things as DMFT, as Prof Manu has said, and we talk to ourselves, we do not quite communicate with any other cadre, even in the whole healthcare system. So there's that blockade of having dentists and their language isolated in their own silo, and not able to communicate across, we haven't been able to break that barrier yet. What we have started to do in Kenya is begin to integrate with a few programmes in that are tackling non communicable diseases. And that is, is a good thing that's happening. With regard to the research, I think we're still a way from achieving anything. I know, the Ministry has a Research and Standards Department. And we're just beginning to really talk to them to see whether it's possible that we can also be having our own indicators that can go into their health management information systems. So that tells you that we really haven't gone in yet. But yes, there are efforts to navigate, there are efforts to try and simplify our language, and make sure that when we communicate, a nurse can be able to engage in our communication. And a community health promoter can engage in our communication.

Richard Watt 16:22

That does seem a persistent issue, both of you have highlighted the silo working and that's certainly a theme that's emerged in other discussions that we've had with other colleagues. So that is clearly a big, big barrier, for moving forward in the research area. Perhaps just slightly moving the agenda forward a bit and taking a sort of bigger picture. So we're talking about research in the Global South, but I suppose many of us, myself included, are sitting in the Global North. And I want to ask both of you, what can organisations, institutions, research funding organisations in the Global North - what can we do to help you guys in the Global South, move forward in some of these issues that you've mentioned? Manu, what's your view on that that partnership between North and South? How can that work?

Manu Mathur 17:19
I will start from a researcher perspective, I think we are not making enough noise that can be heard from the funders and they start considering this to be an important issue. We still lack that emotive appeal that why people should fund Oral Health Research. If you look at the global funding mechanism, if you look at the funding coming through philanthropies, or multilateral organisations, or even national organisation, only 15% of the total funding goes for non communicable diseases. If we look at oral health and consider oral health to be a part of non communicable diseases, competing with cardiovascular diseases, competing with chronic lung diseases, chronic kidney diseases, whatever it is, we are falling short, we have a very, very miniscule share of the pie. And I think here we have to start making an emotive appeal so that our share of pie also enhances and there are various avenues of doing it. Coming back to the point of communication, I think communicating our research, our findings in a way, which have that emotive appeal, you know, making that argument around inequalities making the argument around how social determinants play a major role in affecting rural health, you know, these things resonate very well. And we need a way to convey this to the funders. The other important vehicle to carry this message forward is through the common risk factor approach. I think we see a lot around common risk factor approach, but we don't necessarily make it a point that when there is a funding stream coming on common risk factors like diet, physical activity, tobacco and alcohol, we are a part of it. It has to go both ways, we have to make our case very well with that emotive appeal. And from the funders also they will have to be invited to these Knowledge Transfer platforms where you know, when we are disseminating work, for example, the NIHR Core Project which you mentioned, when we come to the stage of dissemination, I think we should invite funders so that they can understand the depth of activities we have done and how best this can be taken forward. They are part of the decision making process. Also, I think when we're talking about the resonance between Global North and Global South, if that is the term we want to use, I think it has to be a cross learning experience. There are various models which have been found to be extremely successful in working or in terms of implementation in Global South, which can be taught to Global North, and at the same time, I was talking about the methodological expertise, that is something which can come from Global North. I think this kind of a collaboration, which enhances cross learning, provides that kind of emotive appeal, will have far reaching impact on the funding cycles.

Richard Watt 20:18
Well certainly Manu, our Core Programme is trying to sort of develop that cross learning, isn't it? From South to South learning, but also South to North, North to South. So we're not assuming that those of us based in the northern hemisphere have all the answers because that is complete nonsense. But that mutual learning and development shared across or sort of country boundaries, etc, seems to be a good

principle, Regina, from your experience, have your university or other countries across Africa been successful in getting funding from say, you know, Bill and Melinda Gates Foundation or other institutions that provide funding for Global Health Research?

Regina Mutave 21:07
Oral health research is funded, and a lot of researchers that managed to get oral health research funds did so because they were riding on HIV related relationship between oral health and HIV. And I also know that there has been quite some good of funding that has flown into areas where there is a high prevalence of Noma. And that tends to attract some funding. The other aspects of oral health have remained largely unfunded, it means that we as Prof Manu has said, we need to be able to package a lot of advocacy, to be able to demonstrate the priority that oral health should be given. We should be able to start working right from the grassroots from the populations, and actually highlight the gaps that oral health is facing as we were going about talking to communities about oral health in the community mapping exercise, I was surprised by the community members really saying that they have never had a community forum that talks about oral health at all. Yet they admitted that they have had community health forums that discussed a lot of other diseases, including HIV, including malaria, including tuberculosis, and quite a few other disease entities and immunisation. But when it came to oral health, that was the first time they were having such an engagement. And therefore it may require us to shift the way we present this oral health and drive it from the bottom up and make sure that communities can find reason to also highlight oral health as part of their issues, even when they are discussing the funding policies for their government services. So I think we may need to change tact and ensure that there's proper advocacy, and teaching the very affected people more than just ourselves talking about oral health,

Richard Watt 23:31
Regina is a really sort of important point and, and in our early stages of our partnership across our four partner countries, as we know, we're trying to create these links with the community, build trust with the community and understand from the community, what their priorities are in terms of research. So as we move forward, hopefully we'll begin to understand how that works. And certainly, that type of working can help researchers all around the world become closer to their community in terms of priorities and needs. So let's see how that moves forward. We also don't want to come across our discussion as too sort of negative and pessimistic, so maybe we can now focus our thoughts and discussion on moving things forwards. And in terms of how we can develop high quality oral health research, particularly with a public health focus in the global health. So maybe Manu, what would you say are the tangible things that we can do say in the next three or four years that can begin to make some movement in this space that really can begin to develop oral health research in the direction that we want it to go in.

Manu Mathur 24:54
We need to take the conversation beyond the conventional in order to move the agenda forward. I think we should now start talking about grand convergence of oral health. And as Professor Regina was pointing out, and as you very nicely elaborated on the point, that we now start thinking of how best we can integrate oral health with other health and development programmes, I think that should be the first research priority. We should find opportunities for integration. I think we need, we still need research around social determinants of health. And most importantly, I think we need research on innovations

and infrastructures for prevention. And this is something which I think, again, gives us an opportunity for cross learning. Southeast Asia is a thriving hub for IT driven healthcare innovation. It is like a like an innovation crucible. So using big data and analytics, using the kind of frugal innovations which are used for strengthening primary care, I think if we can develop these kinds of innovative best practices if we can, if we can undertake research on the feasibility and acceptability of these best practices, I think we can go far. Again, taking examples from other public health priority conditions, there are some excellent practices, which have emerged in community engagement, which have emerged in how best we can incorporate the agenda of universal health coverage, what kind of data needs to be collected. I think there are some excellent best practices which are present in other disease conditions. If we can adopt it. And if we can use it to strengthen oral health research, I think we will go a long way forward. We have to now move from the paradigm of so what to then what? So we have answered the question on so what, I think we know that oral health is a problem. I think the question is now then what? What are the possible things we can do? Moving towards more towards implementation research, more towards big data analytics, moving towards more complex mixed methods research, which gets the perspectives of community as Professor Regina was pointing out, and more scaling up research and converting pilot studies into scaling up research, which looks at broader health systems, which helps us to strengthen health system, I think that should be the way forward.

Richard Watt 27:13
Regina, over to you, because one issue that we haven't mentioned a lot about is about training, skills development, can we help to improve our colleagues' research skills, their capacity, is that something that we could move forward with?

Regina Mutave 27:32
One of the few things that we need to do is really strengthen training institutions, to be able to conduct research that in the African region is largely a problem. The strengthening is both infrastructure and capacity building. At this moment in time, we may need to consider really capacity building from the grassroots for the purpose of creating primary oral health research as a priority. I'm happy with some programme that's happening in the WHO African region, where an online course is undergoing some piloting, for community health promoters. And that course has a potential to really bring about lots of awareness at the grassroots. And, therefore going forward, it's also important that even the training institutions themselves, reevaluate the curricula and push towards giving oral health research a priority, giving dental public health, oral health promotion, a big space in the training curricula. Oftentimes, the clinical training overshadows anything else. And there is room for beginning upon possession so that oral health research can actually start to grow roots and develop from the young dentist. And then we can have a whole lineup of promoting oral health research and dental public health. We need also to create fora where we encourage academia and ministries of health and policymakers, other policymakers really to be in conversation, and make sure that this policy, this research that can be able to inform the policies that these ministries are working on. Otherwise, at the moment, it might look like, you know, each is operating independently, and the policies may not be very well, based on evidence. I think the last one is basically to explore for ways of making sure that we remove barriers, we create opportunities for sustainable behaviour change. Even though we still speak about oral health being in a silo, if we do not work with others who have probably managed to come up with programmes that have been able to enhance behaviour change, we may not learn the pitfalls that they have been able to go

over. So oral health still need to learn from other disciplines, non communicable disease approaches that have managed to get a little bit of successes. So we still need to come together and learn from each other. We need to have a lot of opportunities for integration. And we need to refocus our trainings to make sure that we grow opportunities for oral health research.

Richard Watt 30:48
Brilliant. Thank you, Regina. And I think maybe this is a good way to sort of summarise as you've both done. So I think we've covered a lot of topics in our discussion. And I think, you know, trying to summarise those ideas is I think we need to be ambitious. I think we need to work across sectors, we need to become more integrated with other developments in NCD agendas, etc. That requires us, I suppose, as oral health researchers, to be better communicators, whether that's with policymakers, whether that's working with WHO and other agencies that can really help to move our agenda forward. And we've heard, Regina, you mentioned very nicely, this importance of capacity building training, and we've got some good developments in that area, but probably more can be done. And then lastly, I think another interesting, important and challenging next step is that community engagement and community involvement, so that we're informed by our community groups on what are the priorities for research moving ahead, and that, of course, might influence priority setting in terms of funding, etc. But look, I'd like to thank both my guests, Regina and Manu for their really insightful, helpful, interesting discussions. And I'd like to thank you for listening to this podcast. In our next episode, we'll be discussing some of these issues in a bit more detail. And we'll be focusing particularly on the issues of how to work with communities to get them more engaged in our research, and the ways of establishing sort of meaningful partnerships with communities and places. In the next episode, we'll be joined by Mirai Chatterjee from India, and Blanaid Daly from Trinity College Dublin. Oral Health Matters is a podcast produced by the Dental Public Health Group at UCL, with production support from Research Podcasts, and funding from the UK National Institute of Health and Social Care Research. Many thanks for listening and goodbye.