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PRESIDENT'S MESSAGE – MARY SANO

Dear members,

The past two months have seen great activities by our IPA members which highlight the important mission of geriatric mental health care worldwide. In September, I joined IPA member Dr. Maria Lapid in Manila, Philippines where we were invited to address the First International Symposium in Geriatric Medicine entitled "Integrating Geriatric Care from Hospital to Home" hosted by St. Luke's Medical Center BGC Geriatric Medicine staff, including Drs. Earleen Seno-Ong, Jose Leo Jiloca, Miguel Ramos Jr., and Mark Henry Joven. Dr. Lapid and I were joined by other eminent geriatrician speakers: Professors Leon Flicker from the University of Western Australia, Philip Poi from Sunway Medical Centre Malaysia, and Kaysar Mamun from Singapore General Hospital.

This conference demonstrated the incredible growth of the caring industry in the Philippines and highlighted the many training programs and service models they have developed across the spectrum delivery points. However, they had a real thirst for education and advice on the mental health needs of aging populations. Dr. Lapid described the full range of geriatric depression and the multi-modal approaches to treatment. The audience eagerly awaited their chance to ask her for further advice and guidance both in diagnostics and management. Equally impressive was her presentation of Behavioral and Psychiatric Symptoms of Dementia. This presentation carefully aligned with and shared the IPA knowledge base of care. It highlighted our perspective on individualizing interventions to identify specific patient needs, to evaluate the environment and to address those symptoms which impair the person's quality of life and safety.

I provided a background on the diagnosis of dementia and of Mild Cognitive Impairment. As the aging populations gains better health care, the loss of cognitive abilities becomes a serious global threat to autonomy and independence. New understandings about the biomarkers and nascent neuropathological indicators can provide earlier opportunities for diagnosis and hopefully targets for better treatments. In the meantime, the breadth of behavioral and environmental interventions in this



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PRESIDENT'S MESSAGE

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area are also important. Our geriatric medicine providers in the Philippines seem eager to grow their ties with IPA in the hope of strengthening geriatric psychiatry expertise in their country and we look forward to working with them closely.

The latest initiative that I am so proud of is the IPA [Disaster Medicine Initiative](#). Led by Drs. Craig Katz and Amy Aloysi from Icahn School of Medicine in NYC, we will be reaching out to all those who share our commitment to better mental health for older persons. We ask all of you to share your experiences of the needs of older person following a disaster. The impact of a disaster whether natural, man-made, social or political can be associated with wide ranges of psychological distress as well as expressions of resilience. We want to hear from both members and nonmembers, as professionals committed to the wellbeing of aging persons. Tell us about your experiences; tell us how to help. IPA will gather the information, share it broadly and initiate an evidence-based approach to assessing needs and proposing solutions. [Please go to the IPA website](#) and share your knowledge and experience.

Finally, I want to challenge us all to spread the word about IPA by increasing our membership. We are one of the least expensive geriatric health provider professional organizations. Our commitment is to address the needs of our rapidly growing aging populations by supporting those who work in geriatric mental health across all disciplines. There is strength in numbers and there is increased opportunity to share our knowledge and resources when our membership is active, strong and increasing. Please join me in a re-commitment to IPA membership. Pay your dues. Introduce a friend or colleague to IPA. Share the experience of getting our world class Journal, this *Bulletin*, plus the digital resources available on the IPA website. Join our special interest groups. If we each commit to signing on just one additional person we will double the size of IPA. The challenge is on: Share your personal successful membership drive. Let us know how many you signed on. Tell us what makes one hesitate or not join. What can we do to make this the most valuable organization for those caring for the mental health of aging adults?

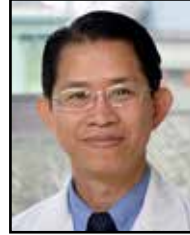
Please tell us what you think.

Till next time,
Mary Sano, PhD



EDITOR'S NOTE – TZUNG-JENG HWANG

During the past several months, IPA has been actively promoting geriatric mental health around the world. In September, IPA activities included: (1) conducting an online Argentina Geriatric Psychiatry Program, (2) hosting the Sleep Symposium in Hoboken, New Jersey, USA (3) joining the First International Symposium in Geriatric Medicine in the Philippines (Drs. Mary Sano, Maria Lapid, Leon Flicker etc.), and (4) joining the 2018 Nursing Home (NH) and Long Term Care Research meeting (Drs. Debby Gerritsen, Raymond Koopmans). In November, IPA co-hosted a workshop with members of the International Association of Physical Therapists working with Older People (IPTOP) in Montreal, CA. Further, IPA has confirmed that the 2019 Congress will be held from 31 August – 3 September in Santiago de Compostela, Spain. The 2020 and 2021 congress locations are still under discussion and will likely be held in Portugal and Kyoto, respectively. In addition, IPA has started a Disaster Medicine Initiative and is planning to initiate a consensus meeting on psychosis in the near future. All these endeavors demonstrate IPA's determination in creating better mental health for older people.



I am very pleased that we have a new assistant to the editor, Dr. Alfonso J. Alfini (USA), and a new assistant editor, Dr. Jorge Pla (Spain). Dr. Alfonso J. Alfini is a postdoctoral fellow at the Johns Hopkins Bloomberg School of Public Health, and Dr. Jorge Pla is an associate professor of the University of Navarra, Spain. Welcome aboard!

In this issue, there are eleven articles, six in "**Research and Practice**," four in "**Around the World**," and one in "**Technology Corner**."

In **Research and Practice**:

Dr. Clarissa Giebel (UK) reports on an article worth reading, describing the roadmap to advance dementia research and care by 2025 in the United Kingdom. The roadmap was developed by the Alzheimer's Society through a rigorous process to identify goals and recommendations and to ensure that a variety of opinions were included. Dr. Laura Valzolgher (Italy) has collected and summarized evidence on the relationship between nutrition and dementia. Dr. Theresa Thoma-Lürken et al. (Netherlands) introduces a decision support App for district nurses and case managers combining structured problem assessment and advice to facilitate aging in place for people with dementia. The App could be a valuable tool for decision support. Dr. Mark Rapoport (Canada) addresses the issue: "Do antidepressants protect against major adverse cardiac outcomes?" Two different papers were discussed. Dr. Gillian Stockwell-Smith (Australia) describes prevalent psychiatric comorbidities in patients with dementia and the need for a holistic, integrated

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EDITOR'S NOTE

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approach to address these issues. Finally, Dr. Karen Reimers (USA) updates the important but frequently neglected issue of elder abuse. Geriatric psychiatrists can play an important role in its identification and prevention.

In "Around the World":

Dr. Alfonso J. Alfini (USA) describes some of the highlights from IPA's 2018 Sleep and Healthy Aging Symposium held in Hoboken, New Jersey, USA on 14-15 September. He summarizes some valuable new knowledge related to sleep problems in older adults. Drs. Raymond Koopmans (Netherlands, IPA chair of SIF of Young Onset Dementia) and Debby Gerritsen (Netherlands, IPA chair of SIF-BPSD) highlight the 2018 Nursing Home and Long-Term Care Research meeting in Rome, Italy. They sum up the content of three symposia including palliative care on young onset dementia, complex interventions for challenging behaviors in nursing home, and the crisis of challenging behaviors in dementia.

Dr. Carlos Spuch (Spain) introduces the Galician Network for Dementia Research (REGIDEM), which may be the first network in Spain dedicated to dementia that combines all sectors, from research groups to family members to the private sector.

Last but not least, in "Technology Corner", Dr. Yung-Jen Yang (Taiwan) introduces the focus-adjustable smart lens for the senile, which is based on a new technology called liquid crystal. Interesting and worth reading.

It is fascinating to know what is happening around the world. The *IPA Bulletin* is an ideal platform for people across the globe to exchange ideas and share experiences for the common mission of enhancing mental health for the elderly. I cordially invite more members to contribute their thoughts and experiences to the *Bulletin*! You can reach us at IPABulletin@ipa-online.org.

DISASTER MEDICINE INITIATIVE

Disaster mental health remains an area of much clinical interest to mental health professionals but also one where an adequate scientific evidence base to guide interventions is greatly lacking due to pragmatic and ethical obstacles.

Much of disaster mental health practice, especially in the acute stage days to weeks later, is therefore evidence-informed and guided by accumulated experience and expertise. This is certainly the case in the area of disaster mental health needs of the elderly, and the IPA now seeks to help fill this void by gauging the professional disaster experience and aspirations of its colleagues.

IPA leaders invite you to submit 1-2 paragraph responses to one or both of the following two questions about geriatric mental health needs and practice in the acute (days to weeks) and /or long term (months to years) aftermath of disasters, whether man-made or natural:

1. Please describe your experience responding to the mental health needs of the elderly after a disaster, whether in your own community or another?
2. Please describe what you wish you could do, and why, to respond to the mental health needs of the elderly in the aftermath of disaster?

Responses can be submitted by [clicking this link](#). IPA membership is not required for participating in this survey, and we invite you to share the link with fellow colleagues.

To learn more, please visit the IPA [Disaster Mental Health of the Elderly web page](#).



DECISION SUPPORT APP IN COMMUNITY-BASED DEMENTIA CARE

Theresa Thoma-Lürken, PhD¹, Michel HC Bleijlevens¹, PhD, Monique AS Lexis, PhD², Jan PH Hamers, PhD¹

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Key highlights:

- A decision support App for district nurses and case managers combining structured problem assessment and advice to facilitate aging in place for people with dementia.
- District nurses and case managers perceived the decision support App as valuable tool.
- Without a gold standard, it is challenging to prove the efficacy of decision support tools. For sustainable implementation, continuous content updates are an important prerequisite for decision support tools.

During the course of their disease, people with dementia often experience practical problems in daily life, which may prevent them from living at home. Various care and support options exist to support people with dementia and their loved ones to cope with these problems and to facilitate aging in place (Gibson et al., 2014; Whitlatch & Orsulic-Jeras, 2018). For people with dementia, and their informal caregivers, it is often difficult to make deliberate decisions that best fit their needs and to oversee both care and support options. Formal caregivers (such as district nurses and case managers) play an important role in detecting practical problems in daily life and advising people with dementia and their loved ones about possible solutions.

However, even for district nurses and case managers, it is challenging to detect problems and to also be aware of all possible solutions. Therefore, a decision support application (App) was developed by Maastricht University and Zuyd University of Applied Sciences, in close collaboration with Dutch district nurses and case managers. The App aims to support a structured problem assessment in three domains: decreased self-reliance, safety-related problems, and informal care/ network-related problems which were found to be important problem domains preventing people with dementia from living at home (Thoma-Lürken, Bleijlevens, Lexis, de Witte, & Hamers, 2018). Moreover, the App provides an overview of possible solutions (e.g., information about care and support services or assistive technology) to deal with problems within the three aforementioned domains.

A usability study revealed that district nurses and case managers judged the App as a user-friendly tool (Thoma-Lürken, Lexis, Bleijlevens, & Hamers, 2018).

In a randomized-controlled laboratory experiment (Thoma-Lürken, Bleijlevens, Lexis, & Hamers, in press), district nurses, case managers and nursing students assessed simulated cases. Participants in the control group used their regular procedure and participants in the intervention group had the additional use of the App. On one hand, no effects were found on: 1) the participants' confidence level when conducting a problem assessment and providing advice, 2) the uniformity in problem assessment, and 3) the number of possible solutions provided per problem detected. On the other hand, nearly all participants indicated they would like to use the App in practice and would recommend it to a colleague (Thoma-Lürken, Bleijlevens, et al., in press).

In participant interviews from the laboratory experiment, the added value of the App was described in terms of being an example of a guideline to conduct a detailed problem assessment or an aid to stay up-to-date with regard to possible solutions (Thoma-Lürken, Lexis, Bleijlevens, & Hamers, in press).

Overall, the decision support App was seen as a usable support tool for formal caregivers, but its efficacy has yet to be proven. Before implementation of such an App can be recommended, more research is needed to test its effectiveness in practice. One of the greatest challenges with

DECISION SUPPORT APP IN COMMUNITY-BASED DEMENTIA CARE, *continued from page 6*

regard to the practical implementation of such a tool would be to establish a system to keep the content of the app constantly up-to-date, as this is an important prerequisite for formal caregivers to use the app.



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A ROADMAP TO ADVANCE DEMENTIA RESEARCH AND CARE BY 2025

By Clarissa Giebel, MSc
The University of Liverpool

Background

People with dementia experience difficulties with a whole range of symptoms, from managing their finances (Giebel et al., 2018), to problems with their memory (Tchakoute et al., 2017) and changes in their behavior (Breitve et al., 2018). To help people with dementia - and their caregivers - live the best life possible, it is important to understand how this can be improved throughout the care pathway, from prevention to diagnosis, all the way through to intervention and care.

While there is so much dementia research out there aimed at finding a cure and improving life quality for people living with dementia, it is really important to set priorities on where to focus next. When we set priorities, we can address those issues considered to be most important by researchers, but also by people providing care, and most importantly, by people living with dementia and their caregivers.

In 2015, Prime Minister, David Cameron, published his 'Challenge on dementia 2020'. This has definitely helped raise

A ROADMAP TO ADVANCE DEMENTIA RESEARCH AND CARE BY 2025, *continued on next page*

awareness about dementia. Just take a look at Iceland Foods (*the shop, not the country*) for example, displaying [dementia friendly signs drawn by Tony Husband](#).

In this blog, I am looking at a recently published paper by Pickett and colleagues (2018) on a roadmap to advance dementia research in prevention, diagnosis, intervention, and care by 2025.

Methods

This taskforce was set up by the [Alzheimer's Society](#), who invited a wide range of leading experts and emerging leaders in their fields within dementia, including backgrounds from gerontology, psychology, health economics, primary care, public health, social care, as well as lived experience.

In order to develop priorities for dementia research and care, the taskforce attended three face-to-face meetings, five teleconferences, and were all interviewed once each. Additionally, once they had created a draft of the goals and recommendations, they distributed these online for feedback by mostly researchers, as well as people living with dementia and their caregivers. Sixty people provided feedback on these goals and recommendations.

Once the priorities and recommendations were finalized, the taskforce met with additional stakeholders and people with dementia and their caregivers at a half-day workshop. At the event, small group discussions were held to develop an action plan to effectively translate these goals into practice.

Results

The taskforce identified five goals to be addressed until 2025. However, it was acknowledged that the translation of evidence and turning it around into practical applications might take longer.

The first of the five goals was to *"Prevent future cases of dementia through increasing knowledge of risk and protective factors"*. This includes conducting epidemiological studies, developing and testing interventions, and better communication to increase awareness.

The second goal was to *"Maximize the benefits to people living with dementia and their families when seeking and*

receiving a diagnosis of dementia". This would involve better understanding of regional and socio-economic differences in diagnosis and service usage/ quality, models of post-diagnostic support provision, and pathways of care.

The third goal focused on *"Improving quality of life for people affected by dementia, by promoting functional capabilities and independence, while preventing and treating negative consensus of dementia"*. In order to improve the quality of life, it is important to promote everyday functioning, improve social interaction, housing layouts, and strongly involve the public in co-producing research.

The fourth goal was to *"Enable the dementia workforce to improve practice and skills by increasing evidence to inform changes in practice and culture"*, which could be achieved by transfer of knowledge.

The fifth and final goal was to *"Optimize the quality and inclusivity of health and social care systems that support people affected by dementia"*. In order to do so, it is important to understand differences in care services, innovative models of health and social care, and support people with dementia and their caregivers to better access services.

Conclusions

It appears the taskforce went through a thorough process of identifying these five goals, by having a variety of experts and members of the public involved in co-producing these goals. As a dementia researcher myself, we are aware that many of these issues need to be addressed. Having them brought up through a methodologically sound investigation however helps to have a solid document to which to refer. What's more, it will hopefully raise awareness outside our bubble of dementia researchers and clinicians, and highlight to everyone how much more really needs to be done to ultimately help improve the lives of people living with dementia and their caregivers.

Strengths and limitations

One of the strengths of this roadmap is the thorough process of identifying the goals and recommendations by involving a wide range of experts and people having direct

lived experience of the condition. This ensures that different opinions were captured.

Not a limitation of the study as such, but recommending changes by 2025 may appear too enthusiastic. Considering the time it takes for researchers to develop funding proposals, and studies generally taking between three to five years, it may be necessary to extend the timeline until 2028 or 2030 for example. It is possible some studies might not find significant results, so that other studies might need to follow.

Implications for practice

The taskforce has come up with a 10-point action plan, to help put the five identified goals into action:

10-point action plan

1. Increasing funding available for research
2. Streamlining set-up processes of research
3. Advancing public and patient involvement
4. Advancing research methods
5. Enabling research to be more inclusive
6. Initiatives to support study recruitment
7. Increasing data storage and reanalysis
8. Increase involvement of professional stakeholders in research
9. Support knowledge exchange and research practices that facilitate uptake and implementation of findings
10. Creating effective researcher networks

These 10 actions seem valuable and are important to put into practice. For example, the National Institute for Health research has already set up a new researcher network for early career researchers, called the '[Dementia Researcher](#)'. The network provides regular updates on topics that are relevant for us early career researchers, such as information on

submitting grant proposals. But it also offers the opportunity to network outside the realms of twitter or conferences.

However, so much more needs to be done to advance dementia research, as the taskforce has described. It is still a long way to improve dementia care, but working up and summarizing the important next tasks is a first step in this direction. Let's hope that this action plan will result in more positive changes than previous ones!

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Giebel, C.M., Flanagan, E., & Sutcliffe, C. (2018). Finance management in dementia: Managing bills and taxes matters. International Psychogeriatrics, doi: 10.1017/S1041610218000820

Tchakoute et al. : <https://www.ingentaconnect.com/content/wk/cbn/2017/00000030/00000003/art00001>



Clarissa Giebel is a research manager at the University of Liverpool, currently finishing her PhD corrections from the University of Manchester. Her research focuses on dementia care, particularly on enabling people living with dementia staying at home for longer, for which she has developed a new tool to assess everyday functioning. For queries or interests in collaboration, please contact her on Clarissa.giebel@liverpool.ac.uk

DO ANTIDEPRESSANTS PROTECT AGAINST MAJOR ADVERSE CARDIAC OUTCOMES?

Mark Rapoport, MD, FRCPC

Professor of Psychiatry, University of Toronto

Staff Psychiatrist, Sunnybrook Health Sciences Centre

Key highlights:

- A randomized controlled trial showed a robust long-term protective effect of 24 weeks of escitalopram on a composite of Major Adverse Cardiac Event (MACE) outcomes over an eight year follow-up among patients who had initially been admitted for acute coronary syndrome
- From that study, one cannot exclude the possibility that depressive symptoms, differential antidepressant treatment and living situation accounts for these differences.
- A meta-analysis showed a reduction of risk of MACE associated with SSRIs in RCTS.
- In that study, one cannot exclude the possibility this had to do with cognitive behavioral therapy.

Two different papers were published this summer, both by authors from Korea, addressing the question of whether antidepressants may protect against major adverse cardiac outcomes. One of these is a randomized placebo-controlled trial, and the other is a meta-analysis of the literature.

Kim et al (JAMA 2018) randomized 300 patients hospitalized with acute coronary syndrome to either escitalopram or placebo for a 24-week randomized placebo controlled trial, published separately. For this paper, they assessed the outcome of major adverse cardiac event (MACE) after a median follow-up of approximately eight years. Escitalopram dosing began at 10 mg and could be flexibly dosed from 5-20 mg a day, and the acute trial was double blinded with a placebo control. After the treatment trial, study medication was tapered down and patients were unblinded. The authors defined MACE as a composite outcome of either myocardial infarction, percutaneous coronary intervention, cardiac death, or all-cause mortality. They found over the observation period, at least one MACE outcome occurred in 40.9% of patients who had received escitalopram during the acute trial, compared with 53.6% who had received placebo (hazard ratio 0.69, 95% confidence interval 0.49-0.96, $p = 0.03$). This corresponds with a number needed to treat of eight. Of the individual MACE outcomes, only MI was significant, although only the composite MACE outcome was the primary question for this study.

This is an impressive long-term follow-up study. While over a quarter of participants in both the escitalopram group and placebo group discontinued their treatment after the baseline evaluation, the authors followed 100% of those who were initially randomized for their outcomes in this study. They found a robust effect on prevention of major adverse cardiac events, which remains significant after controlling for other cardiovascular risk factors and when excluding those who did not complete the acute trial.

This was a single site study, those who were initially included had both major and minor depression, and there was no assessment of depressive symptoms or ongoing antidepressant treatment after the trial had completed. The authors also did not control for living situation which may have been relevant since just over 19% of the placebo group compared to just over 12% of the escitalopram group were unmarried, and 22.5% of the placebo group were living in rented accommodations compared to 14.1% in the treatment group. Since loneliness and depression are strong predictors of mortality, these factors limit caution to interpretation of the results.

Kim et al (International Clinical Psychopharmacology 2018) conducted a meta-analysis of 10 randomized controlled trials that included 1434 patients treated with SSRIs over an average follow-up of 121 weeks. Of these participants,

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DO ANTIDEPRESSANTS PROTECT AGAINST MAJOR ADVERSE CARDIAC OUTCOMES?, *continued from page 10*

491 had at least one MACE. The authors found five of the papers assessed a composite MACE outcome, and when they combined these, they found an RR of 0.74 (95% CI 0.55-0.99). Similarly, five of the papers assessed myocardial infarction as an outcome, and meta-analysis yielded an RR of 0.59 (95% CI 0.37-0.93). They did not find an association with cardiac death or all-cause mortality in the studies that did assess this. The authors proposed various hypotheses about the relationship between SSRIs and adverse cardiac events including positive effects on lifestyle, depression, platelet binding and hypertension.

Although intriguing, there are important considerations which differentiate this meta-analysis from the RCT published this summer. The meta-analysis did not restrict inclusion to those studies focused on patients initially hospitalized with acute coronary syndrome. Furthermore, although the meta-analysis for the composite MACE outcome and myocardial infarction were positive, only one study for each of these was positive, with the remaining negative. That positive study by Taylor et al (2005, cited below), was a randomized trial of cognitive behavioral therapy with an SSRI compared with no treatment. There was no placebo arm. Had the authors restricted their analysis to placebo-controlled studies this would have been a negative meta-analysis, like an earlier one with fewer studies which Kim et al. mentioned by Pizzi et al (2011, cited below).

Thus, to summarize, a randomized controlled trial showed a robust long-term protective effect of 24 weeks of escitalopram on a composite of MACE outcomes over an eight year follow-up among patients who had initially been admitted for acute coronary syndrome, with the caveat that one cannot exclude the possibility that depressive symptoms, differential antidepressant treatment and living situation or loneliness accounts for these differences. A meta-analysis showed a reduction of risk of MACE associated with SSRIs in RCTS, although one cannot exclude the possibility that this had to do with cognitive behavioral therapy rather than the SSRI since the effect was only positive in one study that

combined these treatments compared to no treatment rather than placebo. On the basis of this work, it would be premature to conclude that antidepressants prevent MACE either in older adults or in those admitted with acute coronary syndrome.

For further reading:

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NUTRITION AND DEMENTIA: NUTRITIONAL ISSUES IN PATIENTS AFFECTED BY DEMENTIA

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Key highlights:

- Higher BMI seems to be associated with increased dementia risk when BMI is assessed more than 20 years before dementia diagnosis, but lower BMI predicts dementia when assessed less than 10 years before diagnosis
- There is evidence for a neuropreventive effects of vitamin E, B vitamins, and n-3 fatty acids, and deleterious effects of saturated fat
- Patients affected by dementia, are at risk of malnutrition; screening for malnutrition should occur routinely
- Nutritional supplements are recommended in order to improve nutritional status but not to improve cognitive performance
- The use of artificial nutrition is not suggested in patients with severe dementia or in the terminal phase of life

When talking about nutrition and dementia there are immediately many interrogatives that arise. Patients affected by dementia and their caregivers are often concerned about nutritional issues and sometimes it is not easy to answer their questions. Opinions on nutrition can be different and confusing. Therefore, I have collected and summarized the evidence on some very frequently asked questions.

1. Does obesity really increase the risk for dementia?
2. Are there any specific foods or nutrients that can cause or prevent dementia?
3. Are dementia patients at higher risk of malnutrition?
4. Are there any established and effective nutritional interventions?

1. Does obesity really increase the risk for dementia?

Obesity is recognized as a real disease and is also a modifiable cardiovascular risk factor. For practicality's sake obesity is defined by Body Mass Index (BMI) of 30 or higher (1). Exploring the association between BMI and dementia, evidence coming mainly from observational studies is rather controversial; some studies would show an association between higher BMI and dementia, whereas some others would show a protective effect. In a recent multicenter study (2) of over 1.3 million adults from three different continents,

higher BMI was associated with increased dementia risk when weight was measured 20 years before dementia diagnosis, but this association was reversed when BMI was assessed 10 years before (3). One hypothesis to explain this is that studies with a short follow-up, where BMI is assessed in late life, could be biased by the weight loss occurring during the pre-clinical phase of dementia (2). Whether or not obesity increases the risk of dementia, it is a disease and should be treated.

2. Are there any specific foods or nutrients that can cause or prevent dementia?

Nutrients and other dietary components are essential for the normal functioning of brain and neurons. In the last decades evidence coming mainly from epidemiological studies has suggested a neuropreventive effect of vitamin E, B vitamins, and omega-3 fatty acids (4). These findings are also supported by the beneficial effects observed in the literature for dietary styles rich in vegetables (good sources of folate, vitamin E, and carotenoids), seafood (a source of omega-3 fatty acids), and berries (a source of polyphenols) (5). On the contrary saturated and trans fats seem to be related with increase of cognitive decline and the risk of developing dementia (6).

The positive effects of the Mediterranean diet on the aging brain (which includes daily intakes of olive oil, fish, potatoes,

and moderate wine consumption) has been largely studied, with some significant findings (7). However studies of dietary patterns have shown inconsistent results and further studies are required to establish which diet is specific to dementia prevention (4). Besides specific dietary patterns, other authors (8) suggest that periods of caloric restriction, under medical control, seem to have a beneficial effect on cognitive functions and mood, particularly in the contexts of aging and associated neurodegenerative disorders (8).

3. Are dementia patients at higher risk of malnutrition?

Dementia, and age, are among the factors considered a significant risk of malnutrition (9) due to small appetite, communication difficulties, mood changes, swallowing problems and aversive mealtime behaviour (10). In every person with dementia, routine screening for malnutrition and close monitoring of body weight are recommended (11) and should guide interventions (12).

4. Are there any effective nutritional interventions established?

If nutritional requirements are not met by usual or enriched food, oral nutritional supplements are recommended in order to improve nutritional status (11). However beneficial effects of nutrient or energy supplementation on cognitive abilities are not proven (12). The use of artificial nutrition (parenteral nutrition or tube feeding) in patients with mild or moderate dementia can be considered for a limited period of time if oral intake is temporarily insufficient, but it is not suggested in patients with severe dementia or in the terminal phase of life (11).

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CONCERNS REGARDING THE CARE OF OLDER PEOPLE WITH DEMENTIA AND PSYCHIATRIC COMORBIDITIES

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Key highlights:

- Most people with dementia have other chronic conditions that may affect the progression and management of dementia, and increasing numbers are living with a comorbidity of both dementia and poor mental health.
- It can be difficult to separate psychiatric disorders such as depression, anxiety, or psychosis from reduced cognitive functioning in older people.
- There is a need for action to improve diagnosis, treatment, and management for people with dementia and comorbid psychiatric conditions.
- A holistic, integrated approach is vital to addressing the needs of people in later life with the person with dementia and their caregiver central to the process, considering the impact of the nature and presentation of dementia on pre-existing conditions, and incorporating this into staff education and care practices.

The majority of people with dementia have other chronic conditions that may affect the progression and management of dementia, and increasing numbers are living with a comorbidity of both dementia and poor mental health [1]. While exact numbers are difficult to confirm, mental health problems are relatively common in later life with depression being a prevalent psychiatric comorbidity for people with dementia [2, 3]. The UK Department of Health estimates that 40 percent of older people seeing their general practitioner, 50 percent of older people in general hospitals, and 60 percent of long term care residents have a mental health problem [4]. Dementia Australia reports that 40 to 50 percent of people with dementia have depressive symptoms [5]. The situation is further complicated as some people will develop a psychiatric comorbidity in the presence of a dementia diagnosis, and others will develop dementia subsequent to an existing mental health condition.

It can be difficult to separate psychiatric disorders such as depression, anxiety, or psychosis from reduced cognitive functioning in older people, and the quality of care for both mental and physical health conditions in older people could be improved. Currently, there is an absence of specialised services for older people with dementia and psychiatric

comorbidities. Older people with dementia and psychiatric comorbidities are being cared for in a variety of settings, both within dedicated mental health services and in mainstream health services. Key issues regarding the care of older people with mental health conditions, such as age-specific vs. age-inclusive wards, mixed pathology wards, sectorised or functionalised service models and residential care provision, continue to be debated. The Royal Australian and New Zealand College of Psychiatrists highlights that the needs of older people with dementia and psychiatric comorbidities are often distinct from younger people, warning that mental health services for older people should not be subsumed into a broader 'adult mental health' or 'ageless service' [6]. Placing frail older adults with complex needs with younger adults with psychiatric conditions not only deprives them of the specialized nursing, medical, and social care they require, but also puts them in a risky environment surrounded by behaviourally disturbed younger adults [7]. The effectiveness of drugs in treating depression in people with dementia has also come under question, with clear evidence emerging that psychological therapies and tailored interventions can have a positive effect [8]. However, access for people with dementia to appropriate therapy for depression and other mental health conditions is likely to be limited by the prioritisation

of dementia over depression by medical professionals, and the communication difficulties brought about by the disease [9]. Many adult mental health and physical health services have adopted functionalised service models, with health professionals dedicated to either in-patient ward areas or community services resulting in poor communication and a lack of continuity of care for the older patient as they move between settings [1]. There is also a lack of research regarding the prevalence of mental health conditions in people living with dementia, most research has focused on depression with little knowledge about the prevalence and development of other common mental health problems such as anxiety, or severe mental health problems (psychosis/schizophrenia) [10].

There is a need for action to improve diagnosis, treatment, and management for people with dementia and comorbid psychiatric conditions, with recognition of the negative impact of prolonged in-patient admissions on this vulnerable population. Primary care is well placed to support patients with multimorbidity but there is a pressing need to explore options to improve responses to older people with dementia and psychiatric comorbidities in order to reduce their elevated levels of health service usage and adverse health outcomes [2, 3]. In general, the consensus is that integrated models of healthcare are required that involve good liaison between physical and mental health systems and primary, secondary, and community care services. It is also imperative that there is a geriatric medical liaison to ensure good access to physical healthcare [7]. One of the objectives of the World Health Organization's global strategy and action plan on ageing and health is to align health systems to the needs of older populations, for mental as well as physical health by integrating care across primary, secondary and community sectors, and ensuring a sustainable and appropriately trained, deployed, and managed health workforce [11]. Services need to be collaborative and interdisciplinary while working with statutory and voluntary services to provide a needs-based service for vulnerable people with complex needs [10]. A holistic, integrated approach is vital to addressing the needs

of people in later life with the person with dementia and their caregiver central to the process, taking into account the impact of the nature and presentation of dementia on pre-existing conditions, and incorporating this into staff education and care practices [12]. In the UK the integration of health and community care, primary, and specialist care, and physical, and mental health care is aligned with a focus on relationship centred care, involving family members and ensuring continuity of professional carers [1].

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CLINICAL EVALUATION OF ELDER ABUSE – A SILENT EPIDEMIC

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Elder abuse is often a silent issue in clinical settings. However, it is a global concern, affecting millions of older people worldwide, and a focus of increasing international concern. Elder abuse is a pervasive and growing problem, urgently requiring the attention of geriatric psychiatrists, hospitals, health care systems, social services, lawmakers, and communities. Elder abuse is a problem that is larger than previously thought, and without geographic boundaries. Elder abuse is becoming more widely recognized as a prevalent, identifiable and costly problem with the increasing number of aging adults in the world.

As psychiatrists caring for older adults, we have all had patients who are victims of elder abuse, though we may not be aware of it. Many older adults are ashamed of their experiences and hide the facts of their abuse from their physicians and mental health professionals. Clinicians should keep in mind the possibility of abuse, even if a vulnerable patient denies it. Perpetrators of elder abuse are often someone the elder knows and trusts.

Geriatric psychiatrists play a crucial role in the assessment of an elder's mental functioning and in evaluating the effects

of elder abuse. Do we know what these patients need from us? In addition to practical considerations, we must consider complex ethical and legal issues. This article provides an overview of elder abuse and some practical tips for clinicians on how to evaluate suspected elder abuse.

WHAT IS ELDER ABUSE?

Elder abuse is a broad term. No single definition describes elder abuse uniformly across legal jurisdictions, or across various countries, states, medical subspecialties, organizations, or research studies.

Common elements in formal definitions of elder abuse include:

- an act of commission or omission
- may be intentional or unintentional abuse or neglect
- can be perpetrated by the victim, a trusted other, a stranger, or an acquaintance
- can occur in domestic or institutional settings
- results in harm or threatened harm to the health or welfare of an older adult
- harm can be physical, psychological, social, financial, or sexual

CLINICAL EVALUATION OF ELDER ABUSE – A SILENT EPIDEMIC, *continued on next page*

There are several subtypes of elder abuse:

- Physical abuse refers to the use of force resulting in injury, pain, or impairment. Threats of harm may be part of physical abuse. Injuries due to neglect may also be due to abuse by a caregiver. Examples of this include bone fractures, inadequate medical care, malnutrition/cachexia or decubitus ulcers.
- Emotional (psychological) abuse results in anguish, pain, or other distress due to verbal (insults, harassment, humiliation), or non-verbal acts. It is often associated with physical abuse. Emotional abuse may be part of efforts to manipulate or isolate the elder.
- Financial abuse (elder financial exploitation) is common and may involve the disposition of a person's estate, gifts, property transfers, and other financial acts. It may be more likely to be identified by the victim's family or financial professionals than by physicians.
- Sexual abuse refers to non-consensual sexual contact. It includes not only rape, but other types of sexual assault, including unwanted exposure to nudity. Elders are vulnerable to sexual abuse since they are often cared for in settings where there is little supervision of the caregiver, who may be a stranger.
- Neglect is mistreatment resulting from inadequate attention, carelessness, or disregard for an individual's needs. It can encompass physical, emotional, abandonment, financial, and self-neglect issues.

Elder abuse situations rarely come to the attention of authorities, and the scope of elder abuse has been a subject of interest and speculation for decades. Very few studies have used professional surveys or official data to examine the incidence, prevalence, or mortality-rates associated with elder abuse. Some studies suggest there may be patterns of more verbal mistreatment for women and those with physical disabilities, and more financial abuse for those without a spouse or intimate partner. In general, spouses or intimate partners appear to be more likely than adult children to perpetrate most forms of elder abuse.

Risk factors for elder abuse include cognitive impairment in the victim, physical function impairment, psychological distress, and disruptive behaviors, heavy caregiver burden, substance abuse in the perpetrator, the victim's social isolation, and previous trauma.

Consequences of elder abuse include increased mortality, depression and psychological distress, overall poorer health and functioning, greater likelihood of institutionalization, and economic loss.

Interventions that have the potential to prevent mistreatment include caregiver interventions, money management programs, help lines, emergency shelter, and multidisciplinary teams.

CLINICAL EVALUATION OF ELDER ABUSE

Concern about elder abuse may arise at home, in nursing homes, or other residential settings. Elements of abuse may become evident in the course of the clinical evaluation. There may have been recent changes or decline in functioning flagging the clinician's attention.

Multiple screening instruments are available to assess elder abuse, but none are in widespread use in geriatric psychiatry settings.

Medical and psychiatric care is fundamental in the identification and management of elder abuse situations. The first step in evaluating elder abuse is to conduct a comprehensive geriatric psychiatric assessment, including a mental status examination with screening for mood and psychotic disorders.

The degree of cognitive impairment may be assessed using a standard brief rating scale such as the Montreal Cognitive Assessment (MoCA), the Mini-Mental State Examination (MMSE), or a clock drawing test. Executive function should be evaluated since this is the major cognitive domain associated with decision making.

Collateral information should be obtained from caregivers and concerned parties, maintaining an open mind to the possibility of abuse even with familiar patients and caregivers.

The psychiatrist may need additional knowledge of key facts from outside sources to reliably assess an older person's memory.

Careful physical examination is recommended, with an eye to possible injuries, bearing in mind that many older people are prone to falls or bedsores and they may have fractures or other injuries for reasons other than abuse. Geriatric psychiatrists suspecting elder abuse should arrange for the victim to be physically examined by an appropriate specialist. Clinicians should be alert to any inappropriate use of drugs, restraint, or punishment.

INTERVIEWING TECHNIQUES

The clinical interview provides an opportunity to the geriatric psychiatrist to gain greater knowledge of the victim's situation. However, it may not be helpful to directly question an older adult about abuse. Some patients may be ashamed and reluctant to admit they have been abused, while other abused elders may not conceive of themselves as victims, believing they are dependent and need the abuser to take care of their affairs.

Language and cultural barriers can be a major obstacle to identifying elder abuse, and elders from ethnic, sexual, or religious minorities may be particularly vulnerable. They may need to be interviewed using a translator or other mediator. Family members, especially the patient's children, should not be used as translators, since these individuals may themselves be the perpetrators, and because using an elder's children as translators can convey disrespect. Professional translators or a phone translation service should be used whenever possible.

LEGAL AND ETHICAL ISSUES

In cases of elder abuse and suspected elder abuse, there are complex ethical and legal issues that must be considered:

- Avoid role conflicts and dual role relationships where possible. Consider referring the patient for an independent forensic opinion rather than mixing up the responsibilities of clinical and forensic roles.
- Be mindful of patient confidentiality if called to court in response to a subpoena.

- Have procedures in place that clarify the relationship, fees, and expectations for your forensic work.
- Obtain specific legal decision-making capacity for different tasks, including capacity to manage finances, sign a contract, marry, or make a will.
- Informed consent may be difficult to obtain from an older person in cases of diminished capacity.

Clinicians should consider seeking professional legal advice from attorneys or from their malpractice carrier if questions arise about how to manage legal and ethical aspects of elder abuse situations.

DOCUMENTATION AND REPORTING

Thorough documentation is very important in elder abuse situations. The medical record may later comprise critical evidence in legal proceedings about the documented abuse. Clinicians should record their observations carefully and thoroughly, including mental status examination findings, cognitive findings, quotations from the older victim, photographs (in the case of physical abuse findings), and clarifying sources of collateral information.

Global jurisdictions vary widely in their requirements to report elder abuse. Reporting is often done on a confidential basis. Clinicians should learn the requirements applicable where they work. Nursing homes and other institutions may have special reporting requirements and procedures.

CONCLUSION

The world's rapidly growing elderly population comprises diverse racial, ethnic, gender, and sexual minority populations in each region and globally. Elder abuse can be expected to increase in the coming years due to demographic trends and other social changes. Despite the alarming prevalence of elder abuse and its serious health consequences, there is a current lack of scientifically rigorous intervention research on elder abuse. Much remains to be learned about how to prevent elder abuse and how to intervene effectively.

As all of us age, we strive to maintain our dignity and independence. We seek a good, long life free from harm and

CLINICAL EVALUATION OF ELDER ABUSE – A SILENT EPIDEMIC, *continued from page 18*

abuse. Careful elder abuse evaluations are needed to help shine a light on the issues surrounding elder abuse and to serve our vulnerable elderly population. Geriatric psychiatrists play an important role in the identification of and protection against elder abuse.

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MEETING REVIEW: IPA SPECIAL INTEREST FORUM PRESENTATIONS ON BPSD/ 5TH NURSING HOME RESEARCH INTERNATIONAL WORKING GROUP

Dr. Debby Gerritsen

Radboud University Medical Center, The Netherlands

On the 13th and 14th of September, the Nursing Home (NH) and Long Term Care Research meeting 2018 gathered around 130 researchers in Rome. As members of the IPA Special Interest Forum (SIF) on BPSD, we organized two short symposia about the work of the SIF.

The work for the first short symposium was presented by Daniela Holle, representing Sandra Zwijsen, Bjorn Lichtwarck, Martin Smalbrugge, Margareta Halek, Sytse Zuidema and Debby Gerritsen. It concerned the lessons learned from implementation of complex interventions for challenging behavior in NH residents with dementia, in Germany, Norway and The Netherlands. This work started at a SIF meeting at the IPA conference in Berlin in 2015 in which several care programs were presented. As researchers, we experienced difficulties in implementing an analysis-focused approach to challenging behavior in daily practice of nursing homes. That is why we started an international comparison of three care programs and their implementation strategies into nursing homes; this international comparison should encourage looking beyond the national context for possibilities for improvement and facilitate recommendations that are internationally applicable. The first care program originates from Norway and is called TIME; TIME was delivered in 17 nursing homes in Norway. The second one is the DUTCH Grip care program, which was delivered in 17 dementia special care units in The Netherlands. The last one is the German WELCOME-IdA, which was implemented in six nursing homes in Germany. We used the Template for Intervention Description and Replication to describe and compare the care programs and the applied implementation strategies, in order to develop recommendations for the implementation of analysis-focused care programs for challenging behavior. The three care programs have a lot in common, such as the fact that they structure the steps of detection, analysis, treatment and evaluation of the treatment of challenging

behavior, and that the steps detection and analysis of challenging behavior are guided by assessment instruments, whereas the analysis and reflection of challenging behavior are supported by case conferences and interdisciplinary meetings. Several recommendations were detailed, for instance that the implementation strategy should address all organizational levels from the top management to the staff; and to use the existing local communication channels to diffuse the information about the care program.

The second short symposium concerned work of the SIF-BPSD that started at the IPA meeting in San Francisco in 2016, about crisis concerning challenging behavior in dementia. Rebecca Palm, Sverre Bergh and Annelies Veldwijk presented their work on crisis in dementia. Annelies' presentation was about the experience of crisis among (in)formal carers in Dutch nursing homes. It described a qualitative interview study that aimed to reveal factors that contribute to a stressful situation concerning challenging behavior of a NH-resident with dementia being experienced as a crisis, from the perspective of different stakeholders. A qualitative study was conducted as part of the WAALBED-III study, using semi-structured in-depth interviews (N=6 per case) and multidisciplinary focus-groups (N=1 per case) to explore the views of various stakeholders in the experience of crisis regarding seven NH residents with dementia having severe challenging behavior. The presentation of Sverre Bergh concerned results on learning and coping experiences of nursing home staff using the Targeted Interdisciplinary Model for Evaluation and Treatment of Neuropsychiatric Symptoms (TIME). It concerned a qualitative study to explore the participating staff's experiences with the model and how it meets the challenges when dealing with the complexity of NPS. Three to six months after the end of the intervention, 32 caregivers, leaders, and physicians participating in the trial were interviewed in five focus groups. In the final presentation, Rebecca Palm described



her study into psychiatric crisis in nursing home residents in Germany regarding associations between neuropsychiatric symptoms and nurses' perceptions. The aim was to describe the prevalence of neuropsychiatric symptoms, dementia diagnosis and severity, severity of care dependency and sociodemographic characteristics of nursing home residents who exhibited a psychiatric crisis and to compare these to residents without a psychiatric crisis. Data was taken from three cohorts of nursing home residents who participated in the DemenzMonitor study in 2012 (n=1.689), 2013 (n=1.808) and 2014 (n=784). The presentations showed that crisis in challenging behavior is an important topic internationally, and that working on a definition and further understanding of crisis according to different stakeholders is important for quality of care. We will continue to work on this within our SIF.



Debby's research is about identifying problems in quality of life of and quality of care for nursing home residents, developing (multidisciplinary) interventions to address these and evaluate the effects of these interventions and their implementation. For instance, her group developed and evaluated (the implementation of) interventions for depression and apathy, for challenging behavior, and for psychotropic drugs using innovative methodology. Furthermore, her work includes the development and validation of measurement instruments for these concepts in the frail elderly nursing home population. She is chair of IPA's Special Interest Forum on BPSD.

MEETING REVIEW: YOUNG ONSET DEMENTIA SYMPOSIUM/ 5TH NURSING HOME RESEARCH INTERNATIONAL WORKING GROUP

Prof. Dr. Raymond Koopmans
Radboud University Medical Center, The Netherlands

The fifth Nursing Home Research International Working group was held in Rome, 13 and 14 September. Over 130 participants, mainly researchers active in long-term care research, enjoyed a broad range of presentations. The IPA shared interest forum (SIF) on Young Onset Dementia (YOD) organized a symposium on palliative care in people with YOD with four presenters.

Raymond Koopmans, chair of the SIF, introduced the aims of the SIF and pointed at the special issue of *International Psychogeriatrics* published in December 2014.

Brenda Pistorius, PhD student and trainee in elderly care medicine in at the Radboud University Medical Center in Nijmegen, The Netherlands showed preliminary quantitative

AROUND THE WORLD

MEETING REVIEW: YOUNG ONSET DEMENTIA SYMPOSIUM/5TH NURSING HOME RESEARCH INTERNATIONAL WORKING GROUP, *continued from page 22*



data (n=190) of the Care4Youngdem study regarding advance care planning (ACP) in people with young-onset dementia (YOD) admitted to a specialized long-term care facility unit. A minority of the residents had made ACP agreements before admission to a long-term care facility. During admission a comfort care goal often was prioritized according to the physicians. A considerable amount of the family caregivers indicated involvement in the shared-decision making process is burdensome. Initiating ACP before admission might improve this process.

Romy van Rickstall, PhD student at the Free University of Brussels, Belgium presented an exploratory interview-study about engagement in and preferences for advance care planning in young-onset dementia. The aim of this study was to explore two questions. The first was to which extent family caregiver(s) of people with YOD had already engaged in ACP with patients and/ or professional caregiver(s) and the reasons for doing so or not. The second research question entailed exploring family caregivers' preferences for how to ideally engage in the process with patients, family and professional caregivers. For this inquiry a qualitative approach was best suited. As such, 15 semi-structured interviews were conducted with Flemish family caregivers of persons with YOD. Interviews were transcribed verbatim and subsequently analyzed through the method of constant comparative analysis. It was found that the respondents had only limitedly or had not undertaken ACP and that engaging in the process is not easy for them. The study also showed that younger patients and caregivers are faced with specific challenges associated to their age.

Janine Diehl-Schmid from Munich, Germany, described the first results of the German Study EPYLOGE (Issues in Palliative care for people in advanced and terminal stages of Young-onset and Late-Onset dementia in Germany). EPYLOGE is one of the first studies worldwide investigating how patients with YOD, who live in the community or in long term care (LTC) facilities, are being cared for and if there are differences compared to patients with late onset dementia (LOD). So far, 74 patients had been included, 53% with a diagnosis of Alzheimer's Disease, 37% with frontotemporal dementia and 5% with other dementia. Although dementia severity, as measured with the CDR and the Global Deterioration Scale, did not differ between YOD and LOD, there was a significant difference in mobility as reflected in the Barthel scores. YOD-patients needed much less help with transfers and mobility than LOD-patients. YOD-patients presented with more/ more severe neuropsychiatric symptoms as measured with the Neuropsychiatric Inventory (NPI) than LOD-patients. Quality of life, and comfort and the Symptom Management at the End-of-Life in Dementia-scale did not differ between YOD and LOD. Over two thirds of all patients were treated with psychotropic drugs. Antipsychotics and antidepressants were prescribed in roughly 40% of both patient groups.



Prof. Dr. Raymond Koopmans is an Elderly Care physician and professor in Elderly Care Medicine at Radboud University Medical Center (the Netherlands), focusing on long term care, BPSD, psychosocial interventions, young onset dementia and palliative care in dementia.

GALICIAN NETWORK FOR DEMENTIA RESEARCH (REGIDEM)

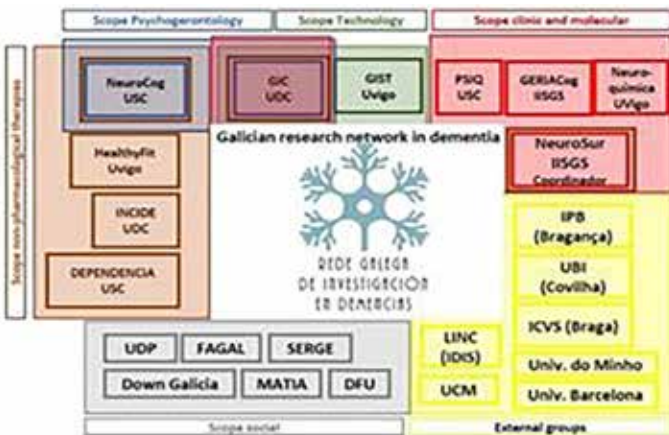
Carlos Spuch, BSc, PhD

Neuroscience Translational Group, Galicia Sur Health Research Institute, SERGAS-UVIGO, CIBERSAM, Spain.

Key highlights:

- The creation of the new Galician Network for Dementia Research called REGIDEM will develop scientific and social activities to implement scientific knowledge within associations of relatives of patients with dementias.
- The Galician Network for Dementia Research (REGIDEM) is presented as a first collaborative and multidisciplinary research effort on a subject with immense clinical and social impact in dementias in Spain.

The Galician Network for Dementia Research (REGIDEM) is a collaborative and multidisciplinary research effort on a subject with immense clinical and social importance – dementia – and includes actors from the basic, clinical, and social research fields. REGIDEM aspires to be the first network dedicated to dementia, combining all sectors, from research groups to family members to the private sector.

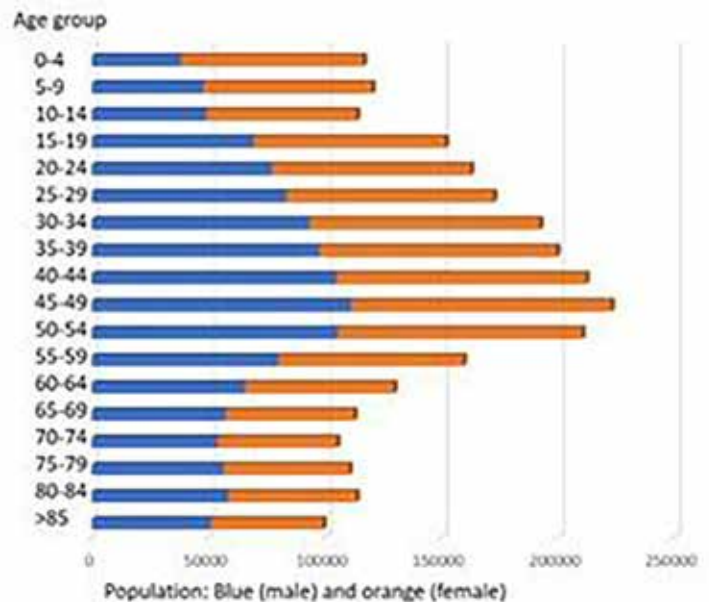


REGIDEM has its origin in the Working Group on Dementias sponsored by the Alzheimer Galicia Federation (FAGAL). This group was formed in 2014 and is composed of professionals from the social, health, and research sectors of dementia with a common goal of promoting knowledge and improving life quality for people suffering from dementia. The primary objectives are socio-health assistance, research, social awareness, and prevention.

Since its inception, the Dementia Working Group's priority has been to strengthen the Galician network of research

on dementias, by understanding the social relevance of knowledge generation and recognizing the opportunity for collaborative research in this area.

Galicia is currently facing a major demographic crisis, the younger population is decreasing and the older population is increasing. Additionally, the dynamics of the European population overall is aging rapidly, for example the average age in Germany is 45.8 years, in Italy its 45.2, in Portugal its 44, and in Spain its 43.2. According to recent official data from the Galician Institute of Statistics (IGE), Galicia has an average age of 47 years, only 20% of our population is under 25 years old, and 45% of the population is older than age 50 [1-2].



GALICIAN NETWORK FOR DEMENTIA RESEARCH (REGIDEM), continued on next page

GALICIAN NETWORK FOR DEMENTIA RESEARCH (REGIDEM), *continued from page 24*

If we focus on the case of dementias, one of the problems we face in Galicia is the number of people suffering from some type of dementia. Thus, FAGAL estimates that around 70,000 people suffer from dementia in our region, this index is based on the premise that dementias affect 12.5% of people over 65 and 31.25% of those who are older than 85. On the other hand, a report from the World Health Organization places dementia as the third cause of moderate or severe disability in people over age 60 in developed countries, which means that in Galicia we have a first order health and social problem [1-4].

One of the responsibilities we assumed from this working group was to create a network of dementia research in Galicia, starting from the needs of the social field, to create projects and lines of research that may impact this field.

The original network was composed of eight research groups, from both the academic and medical fields (Health Research Institutes). However, during the first year of activity, two additional groups joined the network. The current groups are the following:

1. Translational Neuroscience Group (NeuroSur) of the Galicia Sur Health Research Institute (IIS-Galicia Sur), being the coordinating group.
2. Group of Applied Cognitive Neuroscience and Psychogerontology (NeuCogA-Aging) of the University of Santiago de Compostela.
3. Gerontology Research Group (CIG) of the University of A Coruña and the Biomedical Research Institute of A Coruña (INIBIC).
4. Telematic Systems Engineering Group of the University of Vigo
5. Clinical Psychiatry Group of the University of Santiago de Compostela
6. HealthyFit Group of the University of Vigo and IIS-Galicia Sur.
7. Sports Science Research Group (INCIDE) of the University of A Coruña.
8. Group Dependence, Gerontology and Geriatrics (DEPENDENCY) of the University of Santiago de Compostela.

9. Geriatrics Group (GERIACog) of the IIS-Galicia Sur.
10. Neurochemistry Group of the University of Vigo.

In addition to these groups, research groups and relevant external entities have been selected and invited to contribute to research on dementias in the area of Galicia. Thus, the following associations participate in the network as external collaborators in the social field:

- The Alzheimer Galicia Federation (FAGAL), which is composed of 13 associations of relatives of Alzheimer's patients and other dementias.
- The Galician Federation of Institutions for Down syndrome (DOWN GALICIA), which contains seven specific associations for Down syndrome of the Autonomous Community of Galicia.
- Gerontology Therapeutic Complex A VEIGA of Lugo
- Matia Gerontological Institute of San Sebastián
- Democratic Union of Pensioners and Retirees of A Coruña

The following activities have been developed from this network, including activities for scientific dissemination of dementias, lectures, scientific conferences between associations and research centres, or a novel and attractive program such as the workshops, called "DIVULGAMENTE", an educational workshop in the frame of the Alzheimer's Umbrella Network Program. This project of intergenerational awareness, promoted by the Barrié Foundation, the Alzheimer Galicia Federation and the REGIDEM network itself was held this year in the cities of A Coruña, Lugo and Ourense. This workshop aimed to show, in a close and dynamic way, what dementias are, how they affect the brain, and the different existing dementias, bringing the reality of this disease in Galicia closer to the younger ones.

Other scientific proposals being developed are the following lines of research:

- Epidemiological study to know the situation of dementias in Galicia.
- Early detection and development of new diagnostic biomarkers through a greater knowledge of biochemical, proteomic and epigenetic markers.

GALICIAN NETWORK FOR DEMENTIA RESEARCH (REGIDEM), *continued on next page*

AROUND THE WORLD

GALICIAN NETWORK FOR DEMENTIA RESEARCH (REGIDEM), *continued from page 25*

- Active prevention of deterioration; an investigation that makes epidemiological data available to experts, from a biomedical but also socio-political perspective.
- Lines to provide better access to technological resources and a better transfer, which improves care; a social and community approach to research that reverts to affected people and their families.
- Development of projects to prevent dementias through the non-pharmacological approach: to study how physical exercise, nutrition and healthy lifestyle habits can delay cognitive deterioration processes.

There are many research networks in dementia within the scientific framework, where the great infrastructures and different research groups come together, however, ours was novel, building it from the other point of view, the patients and their families. Thus, REGIDEM may be the first research network in dementia where associations, families and their patients are involved in this structure so new scientific projects can be developed that can provide quick answers. That is, we must not forget the great and innovative research projects, where excellence and long-term results are sought, such as the development of biomarkers for early diagnosis, the development of new therapies based on technology or the development of non-pharmacological therapies, as well

as the development of clinical trials and collaboration with the pharmaceutical industry.

The final goal is the same and common for all researchers, professors, clinicians, therapists, patients and their families, to seek to know this disease so that one day the necessary drugs will be developed to treat these patients.

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Linked Clinical Group CIBERSAM as well as the Coordinator of Galician research network in dementia.

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IPA'S 2018 SLEEP AND HEALTHY AGING SYMPOSIUM

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Key highlights:

- Non-photic interventions may be promising for improving sleep and circadian rhythms in older adults.
- Increased light exposure during treatment with chemotherapy may improve sleep and circadian rhythms in people with cancer.
- Shorter sleep duration, poor sleep quality, and daytime sleepiness are associated with increased levels of brain beta-amyloid (A β) in older adults.
- Cognitive Behavioral Therapy for Insomnia (CBT-I) may be a useful strategy for long-term pain relief in older adults with OA.

The Sleep and Healthy Aging Symposium was held at the W Hotel in Hoboken, New Jersey, USA on 14-15 September, 2018. During this meeting, internationally recognized researchers from around the world gathered to share their work on a variety of topics ranging from the chronobiology of older adults, to sleep and circadian rhythms in cancer and Alzheimer's disease, to cognitive behavior therapies for pain-related insomnia.

IPA president, Dr. Mary Sano, and Symposium Chair Dr. Cliff Singer welcomed attendees with opening remarks.

Dr. Suzanne Hood, Assistant Professor in the Department of Psychology, at Bishop's University in Lennoxville, Canada presented on the chronobiology of older adults. Her presentation described several sleep and circadian rhythm-related issues that affect older adults including: a reduced ability to adjust to schedule changes; phase advancement in the secretion of melatonin, cortisol, and core body temperature; and earlier sleep onset. According to Dr. Hood and others, there are several potential mechanistic factors which may underlie these issues including: changes in circadian-related gene expression, structural and functional alterations in the superchiasmatic nucleus, and decreased light sensitivity. Dr. Hood emphasized the importance of using non-photic zeitgebers as potential therapeutic strategies for improving sleep and circadian rhythms in older adults.

Dr. Sonia Ancoli-Israel, Professor Emeritus of Psychiatry and Medicine and Professor of Research at the Center for Circadian Biology at the University of California San Diego presented on sleep, fatigue, and circadian rhythms in cancer. Her presentation described several studies examining associations of sleep and circadian rhythms with fatigue and the timing of chemotherapy. Her findings demonstrated that among women with breast cancer, symptoms of fatigue and poor sleep begin prior to the initiation of chemotherapy. She also found that poor sleep is associated with fatigue and that chemotherapy exacerbates both poor sleep and fatigue. Similarly, chemotherapy and circadian rhythm disruptions share a dose-response relationship, whereby circadian rhythms become more desynchronized with increasing levels of chemotherapy. Finally, Dr. Ancoli-Israel discussed decreased light exposure during chemotherapy as a contributing factor to poor sleep and fatigue and suggested that light exposure interventions should be used to improve sleep, fatigue, and circadian rest/activity rhythms within in this population.

Dr. Adam P. Spira, Associate Professor in the Department of Mental Health at The Johns Hopkins Bloomberg School of Public Health presented on sleep, circadian rhythms, and brain health in older adults. Dr. Spira's presentation described his work examining the association of self-report measures of sleep and daytime sleepiness with beta-amyloid (A β) deposition and brain atrophy. Specifically, Dr. Spira's work

IPA'S 2018 SLEEP AND HEALTHY AGING SYMPOSIUM,, *continued on next page*

IPA'S 2018 SLEEP AND HEALTHY AGING SYMPOSIUM, *continued from page 27*

in humans has tied shorter sleep duration, poorer sleep quality, and excessive daytime sleepiness with increased cortical A β , and increased A β within regions of the default mode network, a brain network known to be susceptible to Alzheimer's pathogenesis. His work has also revealed associations between shorter and longer sleep duration (vs. intermediate sleep duration) and longitudinal decreases in cortical thickness.

Dr. Michael V. Vitiello, Professor of Psychiatry and Behavioral Sciences, Gerontology and Geriatric Medicine, and Biobehavioral Nursing at the University of Washington, Seattle presented on improving sleep and pain in older adults using cognitive behavior therapy. Dr. Vitiello's presentation described his work examining the association of cognitive behavioral therapy for insomnia (CBT-I) with sleep and pain in older adults with comorbid osteoarthritis (OA) and insomnia. His findings demonstrated that CBT-I is an effective treatment strategy for sustainably improving measures of sleep and pain and suggest that sleep quality may drive pain severity. Dr. Vitiello also discussed several potential mechanisms that may underpin these effects, including evidence suggesting

that improved sleep quality decreases pain sensitivity and levels of inflammation; and that better sleep quality may enhance daytime mood and increase physical activity. In summary, Dr. Vitiello's work indicates that improved sleep quality with CBT-I in OA patients may provide long-term pain relief within this population.

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Dr. Alfonso J. Alfini is a postdoctoral fellow at the Johns Hopkins Bloomberg School of Public Health. His research focuses on the association of sleep and circadian rhythms with imaging biomarkers of Alzheimer's disease.

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THE FOCUS-ADJUSTABLE SMART LENS FOR THE SENILE

Yung-Jen Yang, MD, MSc.

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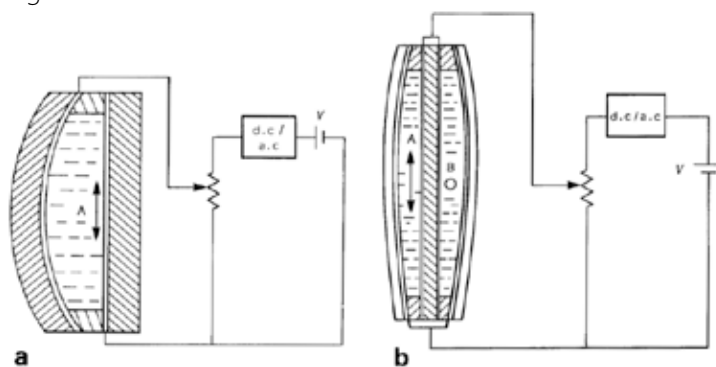
Dysfunctional changes of sensory organs seem inevitable in the elderly population, and these sensory declines absolutely pose serious threats to daily activities, quality of life, and even the safety of the elderly. For centuries, human beings have been inventing various artificial aids, trying to mitigate or even correct these deficits. While the last issue introduced the non-medical bone-conductive hearing aid, this issue will focus on the newly launched “smart glasses.” The main objective of this technological column is to discuss how these glasses can be used to improve sight in senile people. Presbyopia is a common ophthalmological condition that occurs after middle age and is highly common in those older than age 65. According to a recently published systematic review(1), the global prevalence of presbyopia in 2015 was estimated to be around 25%, and 826 million people with presbyopia had near visual impairment because of the inadequate or lack of vision correction. Astonishingly, the impact of presbyopia is as serious as the global unmet need for presbyopia correction, which in 2015 was estimated to be as high as 45% in the same study.

There have been a variety of choices for correcting presbyopia, including corrective eyeglasses (spectacle lenses), contact lenses, refractive surgery, and lens implants. Wearing spectacle lenses is the most common and favourable choice. These corrective eyeglasses can be applied in many ways, they can be bifocal, trifocal, or progressive multifocal lens. Although these glasses are easy to use, there are still many practical issues for those who are both old and myopic. The difficulties and inconveniences in changing focus have increased the need for so-called “smart glasses,” which are frequently found in science fiction or comics.

In early 2018, a Japanese company, Mitsui Chemicals Inc., developed and launched stylish smart glasses with the capability of in-demand adjustable focuses on the same lens. The adjustable lens takes advantage of a technology called liquid crystal, which was developed in the 1970s(2). The

theory of liquid crystal is illustrated in the simplified figure (Figure 1a-1b). By adjusting the electric voltages between electrodes, the particles of the “liquid crystal material” inside the lens will change their alignment and thus change the shape of the lens, thereby adjusting focus. Here are some reviews that will aid interested readers to a more in-depth understanding of the rationale and mechanisms.(3-5) Despite theory and mechanism, the applications of such techniques to the daily life was once hindered by technological limitations until the breakthroughs of nanotechnology in the recent decade.

Figures 1a-b



The focus-adjustable glasses, TouchFocus™ (See Figure 2a-2b), are the latest application of such technology to daily life. For its practicability and exquisite shape, it has won the 2018 Good Design Award, being listed as a Good Design Best 100, they have attracted a lot of focus in the world of technology. According to the literature, smart glasses can instantaneously change far to near vision at the “reading zone” in lens where the liquid crystal technology works. The manufacturer claims that TouchFocus™ glasses are free from the inconvenience and discomfort when using the multifocal lens. TouchFocus™ glasses are currently available in the market, interested readers should visit the official website (<https://www.touchfocus.com>) for more details.

BONE-CONDUCTION HEARING AIDS, *continued from page 29*

Figure 2a-b



(2a)



(2b)

With the first commercial product of liquid crystal technology, the author believes that there will be similar products on the way soon, such as the liquid crystal contact lens. Stay tuned for future developments in this field.

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Dr. Yung-Jen Yang is an experienced senior geriatric psychiatrist at the Tsaotun Psychiatric Center in Middle Taiwan. Currently he is a member of Board of Director of the Taiwanese Society of Geriatric Psychiatry and a lifetime member of the IPA. He has special interests in long-term care and new technology.