



## Response

## Response to “prospective memory impairment in idiopathic REM sleep behavior disorder”



I thank Dr. Bezdicek's group for their interest in our paper published in Sleep Medicine.

iRBD is thought to be an intermediate state between normal and PD as the prodromal stage of synucleinopathy. We tried to observe the tendency for prospective memory (PM) impairments among three states. Although PD patients have been found to perform worse on PM tasks, there were different conclusions, which perhaps contribute to different PM methods. CAMPROMPT is a valid and reliable measure in clinical settings [1]; the Chinese version of CAMPROMPT whose reliability and validity have been established [2], has also been used in evaluating schizophrenia [3].

Perhaps the statement “to the best of our knowledge, no study has investigated prospective memory (PM) dysfunction in patients with iRBD.” is not strictly the case. However, as we mentioned above, we wanted to investigate the PM changes among iRBD, PD and controls using a standardized method; this is different from previous research [4,5]. Of course, the paper will be improved if these discussions are added.

We only offered a pathophysiological possibility of a dopaminergic role in PM impairment. Although TBPM correlated significantly with the reduction in striatal  $^{123}\text{I}$ -loflupane uptake indices in Bezdicek's research, the method only reflects the function of a presynaptic striatal dopaminergic transporter. We do not know a great deal about the relationship between TBPM and dopaminergic function; this needs further study.

In conclusion, EBPM impairment may be an early PM change during the course of synucleinopathy from normal to iRBD and PD in Chinese. These abnormalities of EBPM in iRBD were also found in western countries, which reinforces the concept.

## Conflicts of interest

The ICMJE Uniform Disclosure Form for Potential Conflicts of Interest associated with this article can be viewed by clicking on the following link: <https://doi.org/10.1016/j.sleep.2018.09.015>.

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