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Wristband knows if patients have done their exercise



Major research into lower back pain will determine whether patients do enough to help themselves

By **ALISON CAMPSIE**

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Published: 11:51 Wednesday 30 September 2015

Back pain sufferers are to be fitted with a hi-tech wristband to monitor whether they are making an effort to improve their condition.

Researchers at Robert Gordon University in Aberdeen have been awarded around 500,000 Euro (£370,000) to design the device which aims to improve the way that lower back pain is managed.

It is the fourth most common diagnosis made by GPs in the UK but one of the main ways to treat it is physical activity such as strengthening and stretching exercises.

Dr Nirmalie Wiratunga and Dr Stewart Massie from the School of Computing Science and Digital Media working with colleagues in Norway for three years to develop the monitoring SelfBACK technology.

In addition, Dr Kay Cooper from RGU's School of Health Sciences, will investigate the best ways of changing the behaviour of the person if they are not adhering to a prescribed plan.

Dr Wiratunga, who led RGU's funding bid, said: "Essentially, we would be using wearable technology to monitor whether a patient is following a plan of exercise and stretching developed for them by a GP. It would be able to monitor if a patient was adhering to that plan and if not, look at how we can build in prompts and triggers to encourage them to do so.

"I am absolutely delighted to be involved with this project. It is one of those projects that will hopefully have a big impact on something that is a real issue for society. It is one that brings together technology and health and I think we both have a lot to learn from each other which I am looking forward to."

Dr Cooper added: "Some patients find self-management of a condition such as low back pain quite challenging due to a lack of feedback and reinforcement about the decisions they are making.

"What the research partners are aiming to do in this project is develop a system which will provide them with the reassurance they need to manage their condition after consulting a health care professional."

SelfBACK will work with researchers and organisations from around Europe work to develop better support for those suffering from low back pain as part of the €4.9m Horizon 2020 EU funded project

Random trials of the SelfBACK technology will be carried out to evaluate its effectiveness, with the project team

anticipating a 20% reduction in pain-related disability after nine months of using it.

Other organisations involved in the project include the Norwegian University of Science and Technology (NTNU), University of Glasgow; French software company Kiolis; the National Research Centre for the Working Environment (NRCWE) in Denmark; Dutch company Health Leads; and the University of Southern Denmark.

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