# Mind (is) your body

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**Abstract:** The majority of people who experience mental health issues also have poor physical health resulting in decreased life expectancy. Fortunately, many physical health issues can be identified and rectified by monitoring various health indicators over a time period. The Physical Health Diary is a tool that people can use by themselves and/or with others to track, monitor and improve their physical health over time.

Keywords: Physical health; mental health; medication; lifestyle; track; monitor; providers

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There is a well-established link between mental and physical health. People with mental health issues live 10 to 25 years less than the general population, and are almost three times more likely to die from preventable physical illnesses such as type 2 diabetes and cardiovascular disease. Despite this, physical health assessment is not commonly performed in mental health services. Key factors such as lifestyle, medication side effects, drug and alcohol use, preexisting conditions and social determinants have an impact on the physical health. Therefore, regular monitoring of these indicators is an important step towards improving health and wellbeing of mental health patients.

The Physical Health Diary app was primarily developed to address this gap in mental health services. It is founded on the evidence-based—Clinical Guidelines for the Physical Care of Mental Health Consumers: Assessment and Monitoring Package (1-3). The app is available in Android and IOS and can be used on a phone or tablet.

The app accommodates multiple stakeholders and consumers. An individual can login as a consumer, a carer, or a health practitioner. Each version of the app is slightly different, based on the intended audience. The app empowers consumers with knowledge and means to longitudinally track key indicators (see *Figure 1*). This allows them to engage in productive discussions with carers and clinicians (see *Figure 2*), and take notes about making positive lifestyle choices and planning their own recovery. Only consumers can record notes and share test results with others (their health practitioner or carers). Once the consumer has enabled sharing, others can then record test results for the consumer.

Push notifications for health assessments, an integrated care team contact list of care team (doctors, dentists and specialists, or informal carers), and an easy access website are additional features associated with the app. The website login is only available if an app account has been created. The consumers can utilise the website to record and save the same kind of information that can be stored on the app such as test results which can be shared with others, and personal notes that aren't shared. However, the website does not generate push notifications.

Health practitioners are provided with monitoring parameters and decision trees to guide general health examinations including the Metabolic Syndrome as shown in *Figure 3*. Health practitioners, support staff and carers who are working closely with consumers can put test results into the app on the consumer's behalf. This can be done remotely or during consultation, and the charts can then be used as discussion points so that consumers have a visual representation of their progress. Once people become more independent they can put in their own results, and the health practitioner/carer can see those results too. In



Figure 1 Weight parameters and monitoring.

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MENU		Medication		
1	Antidepressa	nts		
	Recommended Testing			
	Blood Pressu	re		
	Fasting Blood	Glucose		
	Urea and Elec	trolytes		
	• ECG			
	Liver Function	n Tests		
	SSRI			
	Selective Serc	SSRI	×	
	Mental health me	SNRI	) and a brand	
	name (advertised is a list of both so	NRI	the other. Below	
	Generic Name			
	Citalopram	MAOI	apram, Citalobell,	
	onaioprani	RIMA	suprain, ortaiousi,	
	Escitalopram		Lexam, Loxalate	
	Fluoxetine	Tricyclics	Fluoxebell, ), Zactin	
	Fluvoxamine	NaSSA	:am	
	Paroxetine	Other Antidepressants	tine, Extine	
	Sertraline Vortioxetine Hydrob	• • • • • • • • • • • • • • • • • • • •	tra, Setrona, Xydep	
	voruoxeune riyuro.	Junite Duritent		
	Common Side-	effects		
		ow onset of medication (4-12 weeks), nausea, agitation, insomnia, drowsiness, tremor, y mouth, diarrhoea, constipation, dizziness, headache, sweating, weakness, anxiety,		
	weight loss initially,	weight gain long term, sexual difficulties, in	flammation in the nose	
		hes (myalgia), rash. Influenza type symptor itching on the whole body.	ns, vomiting, flatulence,	
	decreased appetite,	hes (myalgia), rash. Influenza type symptor itching on the whole body.		

Figure 2 Recommended testing and medication side-effects.



**Figure 3** Clinical algorithms for physical health monitoring in people with mental health issues.

this way, consumers are not alone in their efforts as their care team can work with them on improving their health. As with the carer version, the app can be used to manage multiple clients, increasing efficiency and reducing costs.

While consumers, carers and practitioners all see the same information and visuals, the differences are in the language used for each audience, and extra information dependent upon that audience. So for example, consumers and carers will see the metabolic syndrome algorithm in the Medication section whereas practitioners will also see algorithms for ECG, Prolactin, etc. That said, once the app is downloaded, people can login as any of the three (using different user names and email accounts) if they wish.

The Physical Health Diary is an important step towards filling a gap in mental health services and empowering

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mental health consumers. Its uniqueness lies in connecting consumers with providers and providing evidence-based content to the practitioner to guide patient care. The ability to track health indicators over time allows the individual and the doctor to easily see changes in detrimental health indicators and take action to prevent major health problems.

To ensure that local mental health services are aware of and have access to the app for consumers, information has been placed on a number of webpages-the University of Western Australia-Psychiatry (http://www.psychiatry.uwa. edu.au/research/community-culture/physical-care-clinicalguidelines), the Western Australian Association for Mental Health (https://waamh.org.au/mental-health-promotion/ mental-health-resources/physical-health-diary-app.aspx), and the Western Australian Office of the Chief Psychiatrist (http://www.chiefpsychiatrist.wa.gov.au/physical-healthdiary-app-and-website/). Social media has also allowed the app to be promoted more broadly to reach international audiences through a Facebook app page (https://www. facebook.com/PhysicalHealthDiary/) and an Instagram page (https://www.instagram.com/physical.healthdiary/?hl=en). It is hoped that mental health services world-wide will see the value in the app and utilise it to assist consumers.

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### Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

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