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COMMENTARY

Increasing the person-centered care of people living with HIV (PLHIV). An analysis and commentary on 'Treatment Challenges, Priorities, and Relationship with Healthcare Providers in HIV Care: A Cross-Sectional Survey of Portuguese Adults Living with HIV'. Antunes, A., Augusto, I., Parada, P., Okoli, C., Appiah, A. & de los Rios, P. (2020). *European Journal for Person Centered Healthcare* 8 (3) 282-293

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Introduction

In October 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) published its landmark report entitled '90-90-90 An ambitious treatment target to help end the AIDS epidemic' [1]. The central ambition of the report was, as stated, the ending of the AIDS epidemic, an imperative described by the report as an "historic obligation to the 39 million people who have died of the disease", and one which represents a "momentous opportunity to lay the foundation for a healthier, more just and equitable world for future generations". An ending of the AIDS epidemic will inspire, the report suggested, " … broader global health and development efforts, demonstrating what can be achieved through global solidarity, evidence-based action and multisectoral partnerships". The authors were clear that in order to 'close the book' on the AIDS epidemic, a multi-dimensional strategy would be required which, at its core, would guarantee access to effective treatment for all those who needed it [1].

In May 2016, a little under two years later, the World Health Assembly of the United Nations, during its 69th Session, authorised the approval of a Global Health Sector Strategy for HIV for the period 2016-2021 [2]. The vision of the Strategy was articulated in terms of the need "to end the AIDS epidemic as a public health threat by 2030". Consisting of 15 ambitious global targets to be achieved by 2020, the Strategy had as its basis the '90-90-90' ambitions of the earlier 2014 UNAIDS Report [1]. Here, the key goals were simultaneously to reduce the under-diagnosis of HIV infection, to enable a greater access to effective treatment of those patients who had been clinically diagnosed, and to ensure that those patients who had commenced therapy actually achieved viral suppression. The achievement of these three goals would bring the additional (and pivotally important) benefit of reducing community transmission of HIV, thereby contributing directly to the general programme of eventual viral eradication.

The 2016 WHO strategy [2], based on the 2014 UNAIDS vision [1], was a bold and laudable initiative, expressing its commitment, in unequivocal terms, to achieve "zero new HIV infections, zero HIV-related deaths and zero HIV-related discrimination in a world where people living with HIV are able to live long and healthy lives” [2]. But a range of commentators, notwithstanding the Strategy’s reference to “ensuring healthy lives and promoting well-being for all at all ages” [2], were uncomfortable with such sentiments appearing ‘more background than central’ within the core vision. What, some notable scientists asked, about the many millions of people who are already living with HIV? What, they continued, should logically follow viral suppression? Indeed, while setting targets for the biological approaches to viral suppression and eradication, the Strategy did not act similarly in terms of the timescales for “ensuring healthy lives” and “promoting well-being for all at all ages”.

Lazarus and colleagues (2016) were the first of many investigators to propose adding a ‘fourth 90’ to the existing ’90-90-90-based’ strategy, arguing that 90% of people with viral load suppression should achieve a good health-related quality of life, with attention paid in addition to the impact and management of co-morbidities (such as, for example, cardiovascular disease, some specific cancers, renal disease, but also many others, as we shall discuss later in this commentary) [3]. Explicit targets, the authors argue, therefore need to be established in how the ‘fourth 90’ can be made a definitive policy requirement for progress in HIV care, and how it can then proceed to operational implementation within modern HIV health and social care services - and progress monitored through the employment of specific metrics [3].

Lazarus and associates [3] were frank in addressing any objections that considerations of quality of life beyond viral suppression would be a ‘luxury’, and therefore an ‘optional extra’ if time, circumstances and clinical interest permitted. Indeed, they rightly posited that an absolutist focus on controlling HIV infection will likely fail to eliminate the other enormous challenges associated with this disease, such as serious co- and multi-morbidities, which include, but are not limited to, anxiety, depression, fear of transmitting HIV to others, uncertainty about family planning, and experiences of, or apprehension about, HIV-related stigma and discrimination [3].

The rationale advanced by Lazarus and co-workers [3] was persuasive, and acceptance of it has been growing rapidly since the publication of their landmark paper. Certainly, from the standpoint of PCC, a wide-ranging focus on quality of life is fundamental and essential. Indeed, a model of care that disregards this imperative, either intentionally or through simple omission, would be *ipso facto* incomplete, being a purely biomedical or even a frankly scientistic account of HIV clinical management. Lazarus and co-workers [3] acknowledged this, observing that health systems experts and clinicians are increasingly calling for care *to be centered on the needs of individuals and communities* (italicisation ours), marking a radical departure from the disease-specific orientation that has hitherto characterized the normative approach within health systems worldwide [4-8].

Much work remains to be done within the context of HIV medicine and healthcare, and it is in this context that we turn now to the paper by Antunes and his colleagues which is published within the current issue of the *Journal* [9].

Treatment Challenges, Priorities, and Relationship with Healthcare Providers in HIV Care: A Cross-Sectional Survey of Portuguese Adults Living with HIV

Antunes *et al*. [9] are clear at the outset that while Portugal has made strong progress towards achieving the three “90” targets developed by the Joint United Nations Programme on HIV/AIDS (UNAIDS) [1-3], little, in contrast, is known about how the country is working towards the implementation of the ‘fourth 90’ [3]. The authors therefore set out to quantify the physical, mental, and psychological difficulties faced by PLHIV in Portugal, in order to explore how these challenges were associated with treatment avoidance behaviors, and to determine the extent of patient and healthcare professional (HCP) engagement in addressing these challenges.

As Antunes *et al*. [9] note, the treatment concerns of PLHIV are in many ways distinct from those of patients suffering with other long-term conditions. There is, for example, the well recognized social dimension of HIV which, being largely negative in its nature, has the potential to complicate acceptance of the disease, constrict social support, decrease adherence to treatment, and impair overall quality of life [10-17]. The authors assert that an improved understanding of how these issues (and the others to which we will turn later) influence treatment-related perceptions and behaviors among PLHIV can help inform clinical practice, including patient counselling and treatment planning.

We agree. Indeed, Antunes *et al*. make the highly important points that more detailed considerations of the treatment challenges faced by PLHIV who demonstrate optimal adherence to treatment, or are virologically suppressed, are necessary precisely because neither adherence nor viral suppression are definitive states, and they are strongly intertwined with quality of life [3,18,19]. They emphasize, rightly, that quality of life may be both an *effect* and a *determinant* of treatment adherence. In terms of the former, where quality of life is seen as an *effect* of treatment adherence, PLHIV, although having achieved complete viral suppression, may nevertheless suffer from some side-effects of their treatment. In terms of the latter, where quality of life is seen as a *determinant* of treatment adherence, we may refer to the observation that some of the principal factors associated with suboptimal adherence to HIV treatment are non-medical, rather than medical, in their nature [19-22].

Turning to the pivotal issue of the patient-HCP relationship in HIV care, Antunes and associates [9] note that clinical interactions not infrequently result in unfulfilled expectations regarding the degree of engagement HCPs want from patients, and *vice versa* [23-28]. As the authors rightly observe, HCPs actively encourage their patients to maintain treatment adherence and to keep appointments. Yet despite such efforts, it remains true that various medical, psychological, or emotional challenges, not all of which HCPs will be aware of, can act to reduce patient adherence to their treatment, even leading to patient non-retention in care. Moreover, some patients may feel the need for assistance in dealing with treatment challenges, but may refrain from formally requesting it.

Antunes and associates [9], in their current study, build admirably on previous work conducted in 25 countries to explore issues related to patient unmet needs, medication challenges, stigma, and treatment aspirations, examining the signal effects of various emotional, physical, and psychosocial challenges which retain the potential to impact upon heath-related outcomes [19]. They focus their study on Portugal on the basis that, despite the impressive progress achieved in HIV prevention and control in this country, it continues to report the highest HIV incidence rate of all Western European countries, at approximately 9.5 new diagnoses per 100,000 population [29]. A better understanding of current treatment challenges, as well as gaps in patient-provider communication, would enable HCPs, the authors argue, to take more proactive steps in how they manage newly diagnosed patients, as well as how they care for those who are treatment-experienced.

Methodological approach and perspectives

Methodologically, Antunes *et al*. [9] have employed a sophisticated overall design and set of analyses which have enabled them to capture a wide range of data, assisted by no less than five patient organisations. The principal measures utilized by the investigators included those aimed at examining the attitudes and behaviours of patients towards HIV treatments, the nature and extent of HCP and PLHIV engagement in HIV care, and the employment of other clinical parameters including self-reported viral suppression, self-rated health (overall, physical, mental, and sexual), experience of ART side-effects, co-morbidities, concomitant medications, treatment satisfaction, and reasons for missing ART within the past month. The demographic data collected by the authors included age, gender, sexual orientation, domicile, and employment status. Interestingly, and very importantly, the investigators examined poor self-prognosis regarding HIV mortality.

In terms of data analysis, Antunes *et al*. [9] computed the percentages of PLHIV with various treatment-related challenges and what percentage overall reported missing ART ≥1 time in the past month due to the specified challenges. In accordance with the socio-ecological model's multilayered approach to health issues, the investigators examined challenges at the individual level (e.g., medical problems), interpersonal (e.g., perceived person-to-person stigma), and community level (e.g., perceived societal stigma). From here, they evaluated whether PLHIV with specific challenges and concerns were more likely to discuss those specific challenges/concerns with their HCP. Comparisons were undertaken using χ^2 tests, followed by analysis of the association between health-related outcomes and the extent of HCP-PLHIV engagement in care (*low*, *moderate*, *high*).

Co-occurrence of various treatment challenges were investigated by tallying how many of the treatment challenges of interest were reported by each study participant, focusing specifically on ART side-effects, difficulty swallowing, perceived stress from daily oral dosing, privacy and confidentiality concerns (hiding medications) and suboptimal adherence**.** The authors explain the selection of their chosen indicators on the basis that they were able to cut across the various domains of treatment challenges identified in their previous study. They employed a dichotomous indicator for whether the participant reported ≥2 (multiple) or ≤1 (single or none) concurrent challenges to treatment, and investigated the crude and adjusted relationships between the number of treatment challenges reported, and health-related outcomes such as self-rated health, perceived gaps with HIV treatment, perceived impact of HIV on their life, and sentiments of reduced life span due specifically to HIV. An examination of the adjusted relationships was conducted using a binary logistic regression model which controlled for age and gender.

Significance of the results

Through the employment of this general methodological approach, the results of the study by Antunes *et al.* [9] are, in our estimation, deeply interesting, highly significant, and of direct relevance to the development of more person-centered HIV services. Signally, the authors observed the needs and subjectively assessed priorities of PLHIV to be diverse, confirming the results of other studies reported previously within the HIV literature. A notable finding was the expressed desire of a substantial proportion of PLHIV (43%) for improvements in their medications and overall HIV care (53%). The authors report physical, psychosocial, and emotional challenges, including anticipated stigma, to be frequently cited by PLHIV as in need of closer clinical attention; a finding, again, consistent with the previously published studies they reference.

A noteworthy observation in the study by Antunes *et al*. [9] was, we considered, the articulated preference by PLHIV for innovations in treatments and treatment regimens that enable a reduction in the number of medications prescribed, in favour of treatments and treatment regimens that also involve less frequent administration, but with reference to the clear caveat that viral replication would remain firmly suppressed. Advances of this nature have been posited as the basis of increased adherence to treatment. Since adherence to treatment has long been tightly correlated to patient acceptance of, and ongoing satisfaction with, their medicines [30-37], it is more than intuitive, we suggest, that efforts to develop and provide patients with more flexible treatment options may be expected to result in elevated treatment adherence, to assist patient retention in care, and to guarantee, probabilistically, the best clinical outcomes for treatment and care. Prominent among such therapeutic innovations, at the time of writing, are the new non-oral long-acting directly observed ARTs which have the potential to directly address some of the unmet problems identified by Antunes *et al*. [9] in their study, representing new therapeutic approaches with the very real potential to free patients from the burden of daily drug regimens [38-41].

One such exemplar in this context may be provided here in the form of the long-acting injectable formulations being developed for cabotegravir, an integrase strand-transfer inhibitor, and the non-nucleoside reverse-transcriptase inhibitor rilpivirine. Early studies have demonstrated that viral suppression was maintained through week 96 in 87% of the participants who switched to monthly long-acting therapy, as compared with 84% of the participants who continued oral therapy, with viral suppression being maintained through week 160 in 83% of the recipients of long-acting therapy. Interestingly, the long-acting regimen were reported as being preferred by over the previous oral therapy by 91% of recipients, even after 12 individual monthly injections [cf.39-41].

Eliciting patient preferences and employing them as part of shared decision-making *with* the patient is a fundamental activity as part of person-centered care, respecting patient choice and preserving patient autonomy [cf.4-8]. In their paper, Antunes *et al*. [9] note that PLHIV who reported that their HCP sought their patient preferences before prescribing treatment were more likely to report treatment satisfaction. Since patient satisfaction is strongly correlated with high treatment adherence, such observations emphasize the clear need for HCPs to engage closely with patients and to assimilate patient preferences when initiating or switching ART [42]. As Antunes *et al*. [9] point out, and we agree, patient preferences for non-daily ARTs are not simply the result of worries about the potential side-effects of medicines; on the contrary, there are various psychological factors at play which require careful clinical consideration [cf.19**]**. In this context it must be remembered that, for some patients, the *daily intake* of anti-HIV medications functions as a *daily reminder* of their HIV status and accordingly represents a potential barrier to consistent treatment adherence and thus the generation of the best clinical outcomes [43-49]. We anticipate, therefore, that long-acting non-oral regimens for HIV treatment are likely to represent personal choices which patients can select according to their individual preferences as part of the person-centered care model. When adopted as part of their shared decision-making in collaboration with their clinicians, further studies will provide insights into whether the novel regimen expectations of PLHIV have been met in this context.

Ways forward

The primacy of patient choice, and the now amplified audibility of the patient voice through shared decision-making, while it is powerful in securing for patients their preferred medications and medication regimens and modes of administration, is, we suggest, just ‘half of the necessary picture’. Indeed, an effective management of HIV, one which is *authentically* person-centered in its nature, will require much more than new models of dosing strategies with biomedical endpoints as their real, primary focus. We refer here to the imperative to consider the multiple impacts of a HIV positive diagnosis, and to deal with them in what might appositely be described as a ‘long haul manner.’ Too many times have we heard so many HIV (and other) patients say: “I am *alive* because of the drugs, but I am *not actually living*”. This is not a facile distinction. Who can fail to understand what these patients are saying, and then to strive, with humanity, to address it? Such concerns are not exclusive to clinicians and patients and their families; they are - or should be - the shared concerns of pharmaceutical companies too, given their ability to support, with great strength, enthusiasm, and significant resources, the progress of more person-centered care within modern healthcare systems - for which they, with others, can then rightly take full credit ‘later down the line’.

A great deal more work remains to be done if clinicians, health systems, and the pharmaceutical industry, working in dynamic partnership with a wide range of other indispensable stakeholders within the so called ‘healthcare ecosystem’, are to be successful in realizing a tangible progress to which they may jointly lay claim [50]. As we have consistently insisted, the time for rhetoric and reflex rhetorical gestures is over [6]. The focus now must surely be on hard operational progress. While some peripheral aspects of PCC may benefit from further, even extended, philosophical rumination [51], the core principles on which to base strategic advances, and reap their benefits, are crystal clear [6]. In the words of the Consultant Paediatric Surgeon that Asbridge quotes: “You just have to get on with it” [52].

Conclusion

As Antunes *et al*. [9] are clear, physical, emotional, and psychosocial challenges are common among PLHIV and are not infrequently associated with treatment avoidance behaviours, which can be disastrous in terms of clinical outcomes. We join with the authors in recognizing that many questions remain unanswered about how to proactively address co- and multi-morbidities in PLHIV. With the authors, we are clear that as more people taking antiretroviral therapy live into their sixties, seventies, eighties, and beyond, healthcare providers will increasingly be confronted with scenarios in which multiple diseases need to be managed simultaneously and multiple types of pharmaceutical interventions need to be coordinated. Among these will be the non-oral, long-term, injectable formulations of ARTs, in responsivity to individual patient preferences as part of the person-centered care model.

With Antunes *et al*. [9], we remind readers that in terms of self-perceived quality of life, virally suppressed PLHIV frequently report high levels of fatigue and energy loss, insomnia, sadness and depression, sexual and relationships dysfunction, changes in body appearance, anxiety, fears, existential crises, worries about the loss of long held life goals and projects, alcohol and substance misuse, and a great deal else.

Only an authentic person-centered care of PLHIV can, in our view, effectively address these concerns, and act to relieve the associated 'day-in-day-out' suffering [5-8]. "We need to get on with it" [52].

Conflicts of Interest

We declare no conflicts of interest.

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