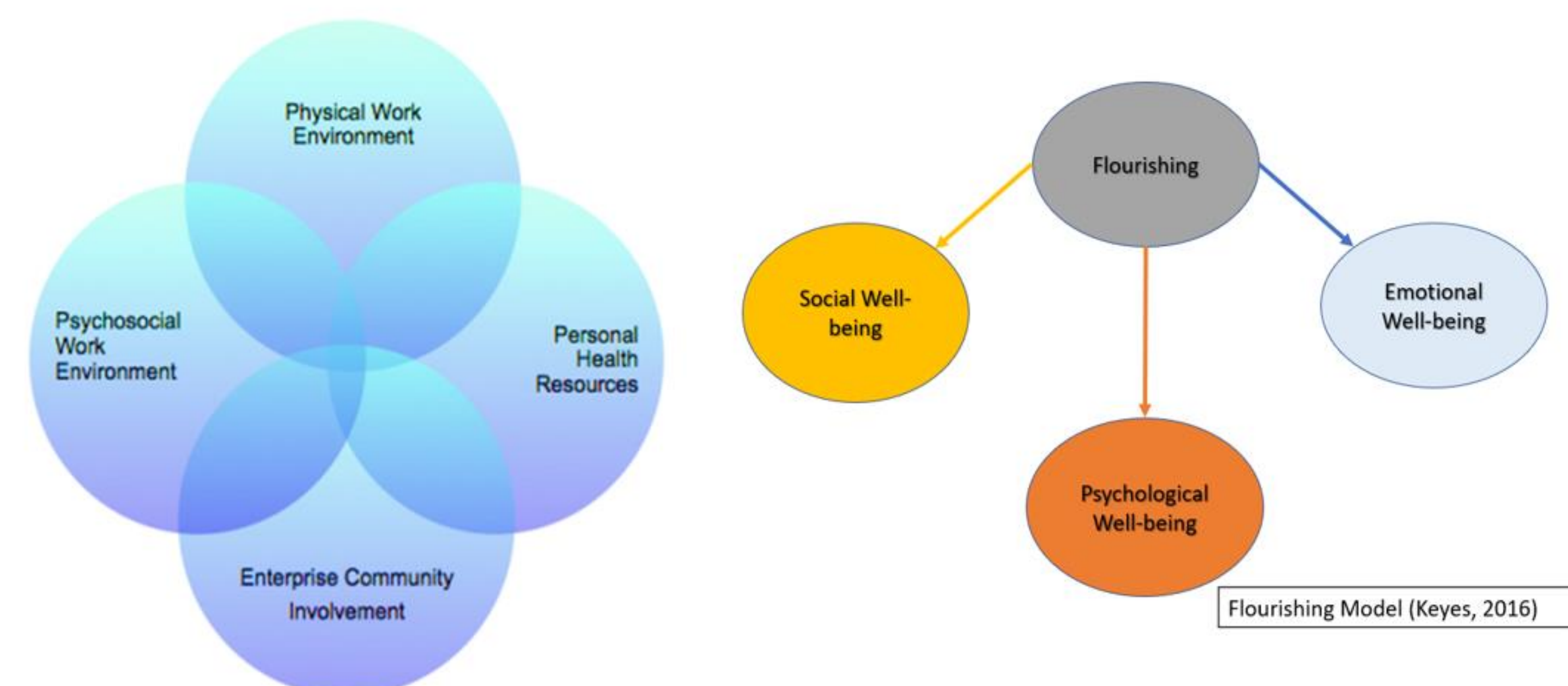


INTRODUCTION

Well-being has often been defined as having positive affect, a sense of fulfillment and positive functioning in daily life [1]. Well-being within East Asian countries has evolved into a unique blend of individualistic and collectivist characteristics resulting from the continuous practice of traditional values and beliefs alongside infiltrating Western ideologies [2]. Well-being is a subjective and multifaceted phenomenon at the workplace with significant measurement challenges [3]. However, instruments used previously to examining workers well-being in Hong Kong were mostly unidimensional, designed within western contexts, developed several decades ago, before work-from-home and internet-based work became commonplace. The study aimed to develop and validate an integrated and culturally relevant instrument for measuring contemporary workplace well-being (WWB) in Hong Kong.

Theoretical underpinnings: An Integrated Approach

WHO's Framework for Healthy Workplaces (Burton, 2010)



METHODS

A **multi-step exploratory approach** guided by the Flourishing & World Health Organization's Healthy Workplace frameworks was used to develop the integrated WWB instrument. These included an **Item Design phase** consisting of review of existing WWB instruments, thematic content analysis of an online survey of workers' opinion of WWB in Hong Kong (n=252) and content validation of candidature items via expert opinion and cognitive debriefing, a **Scale Development phase** done through a population-based telephone survey of Hong Kong workers (n=650) to aid the factorial analysis and a **Scale Evaluation phase** to determine its psychometric properties.

RESULTS

Item Design phase:

- Psychosocial work environment was researched mostly by existing WWB instruments and emerged as the main theme referred to by workers in the online survey.
- Although, relational and interdependence factors were strong indicators of WWB in the online survey which is typical of collective societies, only few responses were inclined towards enterprise community.
- Eight (8) constructs with 69 candidate items corresponding to our integrated model (Flourishing & WHO's healthy workplace framework), scoping review and online survey findings were initially created, in addition to items on basic demographic characteristics and WHO-5 scale for scale validity.
- Equivalence between the English and Chinese versions was achieved through a rigorous back-translation process.
- Sixty-one candidature items were adopted for further examinations after they were rated as relevant, clear and comprehensive and achieved CVI scores > 0.78.

Scale Development phase: Telephone survey sample characteristics;

- Of the respondents, majority were 45-54 years (52%), females (53%), married (65%), F7 or below/vocational qualifications (54%), had no dependent children (72%), had >5 years work experiences (69%).
- Also, 43% had worked from home at least parttime during the past year, 48% worked ≥ 50 hours/week, 42% and 44% reported household and personal monthly incomes of 50,000+ and <25,000, respectively.
- Most (35%) rated their physical health as 7/10 (M=6.83, SD=1.49).
- 33.4% reported worsened WWB during the Covid-19 pandemic (3.8% indicated improvement). Most attributed their worsened WWB to lowered income/job opportunities and increased workload while improved WWB was linked to flexible work options.

Scale Evaluation phase (Test of Dimensionality):

- The Exploratory Factor Analysis using principal component factoring with an Oblimin with Kaiser Normalization rotation and eigenvalue greater > 1 yielded 9 domains, but factor 1 captured 17 items that appeared to be formed from subfactors. Further reliability analysis of Factor 1 yielded 3 subfactors.
- The 9 factors explained 68.8% of the total variance.

Test of reliability (Cronbach alpha)

Factor	No. of items	Cronbach alpha
1. Mission Meaning subscale	7	.92
Happiness subscale	5	.90
Job Benefits subscale	5	.91
2. Spillover effects scale	8	.81
3. Job role scale	3	.67
4. Organizational culture of support scale	8	.87
5. Work mood scale	2	.74
6. Workplace physical environment scale	9	.93
7. Negative organizational culture scale	7	.85
8. Job nature scale	2	.41
9. Job flexibility scale	3	.89

Test of criterion validity

The correlation analysis showed that overall WWB had;

- significant positive correlations with WHO-5 (r=.65, p<.01), Mission Meaning (r=.86, p<.01), Happiness (r=.89, p<.01), Job Benefits (r=.86, p<.01), Job Role (r=.58, p<.01), Org. Culture of Support (r=.79, p<.01), Work Mood (r=.20, p<.01), Workplace Physical Environment (r=.87, p<.01), Neg. Org. Culture (r=.68, p<.01), Job Flexibility (r=.63, p<.01) and Job Change Intentions (r=.14, p<.01).
- Significant negative correlations with Spillover Effects (r=-.29, p<.01), Job Nature (r=-.19, p<.01), Physical Health (r=-.15, p<.01), Covid-19 influence (r=-.30, p<.01).
- But uncorrelated with sex (r=-.02, ns).

Workplace well-being and associated factors

- The overall workplace well-being showed a mean of 157.74 on a 300-point scale (SD=23.32).
- A univariate linear regression analysis revealed age<55, never married, working spouse, higher education, being a professional worker, high work hours, contemplating job change, higher personal monthly income and work from home at least parttime were significant predictors of lower workplace well-being status.
- However, only educational status, job type, work hours and job change intentions were noted in the multivariable regression to influence WWB.

Limitations

- Self rated variables with potential for bias.
- Limited criterion variables included.
- A onetime examination of workers well-being.

Strengths

- Mixed method approach enabled the identification and structuring of domains and scale validation.
- Identified the factorial domains of WWB in Hong Kong which added onto previous understanding of workers well-being.

CONCLUSION & IMPLICATIONS

- This study developed and validated a new WWB scale applicable to Hong Kong using a mixed method approach.
- WWB in Hong Kong was observed to have 11 dimensions related to individual and group experiences and encompasses emotional (e.g., happiness), social (e.g., support) and psychological (e.g., mission & meaningful work) experiences both within and external to the workplace.
- Considering the complexity of well-being at the workplace, the factors identified will influence policies and practices that can be adopted by workers themselves and organizations to improve workplace well-being and increase societal well-being in Hong Kong as a whole.

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