

Work ability and quality of life of workers attended in primary care**Capacidade para o trabalho e qualidade de vida de trabalhadores atendidos na atenção primária****Capacidad para el trabajo y calidad de vida de trabajadores atendidos en la atención****Fabiana Caetano Martins Silva e Dutra¹****Alline Alves de Sousa²****Patrícia Maria Vieira³****Edna Aparecida Carvalho Pacheco⁴****Rosimár Alves Querino⁵****Ailton de Souza Aragão⁶****Received: 11/11/2017****Approved: 07/07/2018****Published: 27/09/2018**

The objective of this research was to evaluate the ability for work and the quality of life of workers attended by the public health network in Uberaba-MG, and to identify possible associations between work ability, quality of life, and sociodemographic, economic and occupational characteristics. Cross-sectional study, with 111 workers who were evaluated with a sociodemographic, economic and occupational questionnaire; SF-36 for the evaluation of quality of life and the Work ability Index, from March to October 2013. Descriptive statistics, the Mann-Whitney test and Spearman correlation were used to analyze data. The sample was made mostly of women, under 44 years of age and active in the work market. Work ability had significant associations to age, educational level, number of years away from work, and all domains of quality of life. This study suggests actions to preserve the work ability of the individual and improve their quality of life.

Descriptors: Quality of life; Work capacity evaluation; Occupational health.

O objetivo desta pesquisa foi avaliar a capacidade para o trabalho e a qualidade de vida de trabalhadores atendidos pela rede pública municipal de saúde de Uberaba-MG, e identificar possíveis associações entre capacidade para o trabalho, qualidade de vida e características sociodemográficas, econômicas e ocupacionais. Estudo transversal, envolvendo 111 trabalhadores avaliados com um questionário sobre características sociodemográficas, econômicas e ocupacionais; SF-36 para avaliação de qualidade de vida e do Índice de Capacidade para o Trabalho, no período de março a outubro de 2013. Para análise dos dados empregou-se estatística descritiva, teste *Mann-Whitney* e correlação de *Spearman*. A amostra foi composta em sua maioria por mulheres, com menos de 44 anos e ativas no trabalho. A capacidade para o trabalho apresentou associação significativa com idade, escolaridade, tempo de afastamento do trabalho, e com todos os domínios da qualidade de vida. Sugere-se ações de preservação da capacidade do indivíduo no trabalho e melhorias na qualidade de vida.

Descritores: Qualidade de vida; Avaliação da capacidade de trabalho; Saúde do trabalhador.

El objetivo de esta investigación fue evaluar la capacidad para el trabajo y calidad de vida de trabajadores atendidos por la red pública municipal de salud de Uberaba-MG e identificar posibles asociaciones entre capacidad para el trabajo, calidad de vida y características sociodemográficas, económicas y ocupacionales. Estudio transversal, involucrando 111 trabajadores evaluados con un cuestionario sobre características sociodemográficas, económicas y ocupacionales; SF-36 para evaluación de calidad de vida y el Índice de Capacidad para el Trabajo, en el periodo de marzo a octubre de 2013. Para análisis de los datos se empleó estadística descriptiva, test *Mann-Whitney* y correlación de *Spearman*. La muestra fue compuesta en su mayoría por mujeres, con menos de 44 años y activas en el trabajo. La capacidad para el trabajo presentó asociación significativa con edad, escolaridad, tiempo de licencia del trabajo y con todos los dominios de la calidad de vida. Se sugieren acciones de preservación de la capacidad del individuo en el trabajo y mejorías en la calidad de vida.

Descritores: Calidad de vida, Evaluación de capacidad de trabajo; Salud laboral.

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INTRODUCTION

Work is an expression of the human condition, since it is through it that men interferes in nature, relates to other men, and transforms, dialectically, himself, and nature¹. In capitalist society, the work process leads not only to the conditions for the existence of the workers, but also their quality of life and health².

In this context, one of the indicators used is the ability for work, which can be defined by the aptitude to execute functions, according to labor requirements, health state, abilities, and physical and mental conditions. It results from the interaction between the resources of the individuals considering their work and can suffer the influence of the conditions in which said work is performed, as well as from the presence of morbidities, from the health-sickness process, and others³⁻⁵.

Work ability is also associated to the quality of life, understood as the perception of individuals of their position in life, in the context of the culture and system of values in which they live, and regarding their objectives, expectations, standards and interests⁶.

Studies have shown that the greater the ability for work, the greater the quality of life of the workers^{4,7-9}. An example of an internationally validated instrument, used to evaluate the quality of life, is the *Medical Outcomes Study 36* (SF-36), which was also translated and validated to Portuguese⁶.

The connections between work ability and quality of life are greater when the physical domain is concerned⁴. The work ability has been strongly associated to the quality and the safety of the workplace, to management of leisure time, levels of absence from work, and financial costs to the company^{8,10,11}.

Age, sex, income and time of work also significantly predict the levels of quality of life and work ability¹⁰⁻¹³. Therefore, considering the amplitude and the complexity involving the construct of quality of life, it becomes clearly necessary to develop special health promotion and prevention programs aimed at improving work ability.

In this context, the objective of this research was to evaluate the ability for work and the quality of life of workers attended by the public health network in Uberaba-MG, and to identify possible associations between work ability, quality of life, and sociodemographic, economic and occupational characteristics.

METHOD

This is an observational and cross-sectional study, which evaluated workers attended by the municipal public health network in the city of Uberaba-MG, from March to October 2013.

The inclusion criteria were: being an adult (from 18 to 60 years of age), of either sex, a worker in any situation in the work market (active, absent from work, or unemployed), working under any type of contract (formal or informal), and be attended in a municipal health unit. Were not included: workers with no availability to answer to the study, those who had some condition which prevented them from understanding or giving truthful answers, neither those who never performed any work activity.

To estimate the size of the sample, a confidence level of 95% was considered, with a desired maximum error of three points and a mean standard deviation of 15.5, estimated according to a pilot study. This led to a total sample of 103 individuals.

The health system in Uberaba is divided in three Sanitary Districts, and primary health care is organized in 17 Family Health Units, 2 Primary Care Units, and 9 Matrix Health Units¹⁴. The workers were selected by convenience in 9 randomly chosen health units (Primary Care and Family Care ones). A minimum of three units per sanitary district was respected and the evaluation of the participants happened during their consultation.

The sociodemographic, economic and occupational characterization of workers took place through the application of a questionnaire made up of items such as sex, age, marital status, educational level, income, current occupation and time in the current occupation, current work situation (active,

absent from work, or unemployed), and, for the absentees, the duration of their absence.

To evaluate the quality of life, the validated instrument SF-36 was used⁶. The SF-36 is a questionnaire made up of 36 questions divided in eight domains, which are: functional ability, role-physical, pain, general health, vitality, social functioning, role-emotional, and mental health. Each domain receives a score from 0 (zero) to 100 (a hundred). The closer to zero, the worse the quality of life; the closer to 100, the better it is⁶.

The evaluation of the work ability was assessed using the Work ability Index (ICT), which considers physical and mental demands, resources and health conditions of the workers, according to their own perception. The ICT items make up seven dimensions: work ability compared to the best ever in life, work ability related to physical demands, number of current diseases diagnosed by the physicians, estimated losses at work due to diseases, absent days at work due to diseases in the last year (12 months), self-prognosis for work ability two years from now, and mental resources^{3,12}. The scores varies from 7 to 49 points, and is classified in four levels: low work ability (from 7 to 27 points), moderate ability (from 28 to 36 points), good ability (From 37 to 43 points), and optimal ability (from 44 to 49 points)³.

Statistical data analysis was carried out using the software *Statistical Package for the Social Sciences* (SPSS) for Windows, version 20.0. The database included sociodemographic, economic, and

occupational variables, adequately codified, as well as the answers given to each item in the ICT and quality of life questionnaires. During data analysis, descriptive statistics were used at first. For the association of quality of life and of the sociodemographic, economic, and occupational variables with work ability, the Mann-Whitney U and Spearman's correlation were used. A significance level of 5% was considered for all tests.

The study was approved by the Ethics Committee for Research with Human Beings (protocol n. 2394, in 02/23/2013).

RESULTS

111 workers participated in the study. Most were female (63.1%), mean age of 36.5 (SD=13.4) and monthly income of R\$ 2,845.14 (SD=2,195.54), which corresponds to 4.2 minimum wages, as Table 1 indicates.

Most participants were single (48.6%) and had completed high school (33.3%). 84.7% of participants had more than 8 years of study. Regarding the current work situation, most participants are active (69.4%) and 30.6% are absent from work. Among active workers, their time in the current job varied from one month to 37 years (mean= 4.44 years and SD=6.4). In the group of workers outside of the job marked, the duration of their absence was, on average, 9.5 months (SD=19.18 months), varying from one month to eight years, which can indicate temporary or even permanent incapacities for work (Table 1).

Table 1. Sociodemographic and occupational characteristics of workers attended in the public health network. Uberaba-MG, 2013.

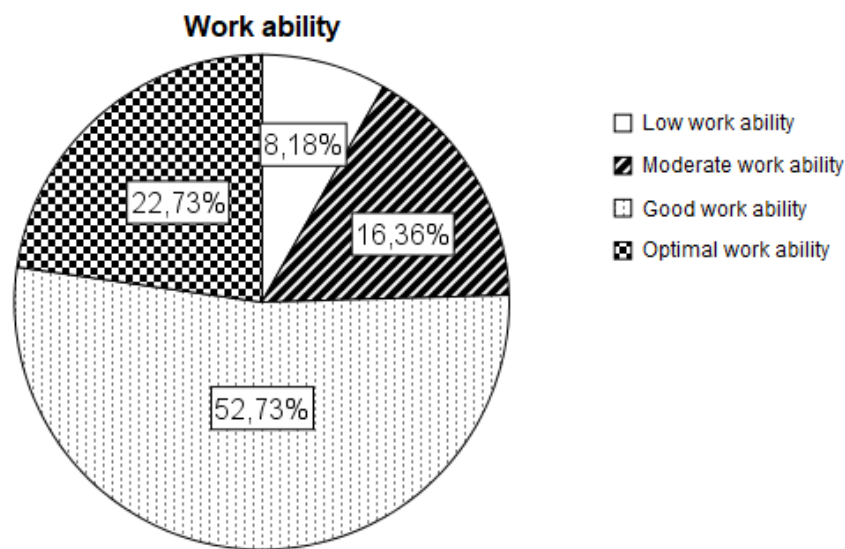
Variables	Absolute frequency (n)	Relative frequency (%)
<i>Sex</i>		
Female	70	63.1
Male	41	36.9
<i>Age</i>		
Up to 44 years of age	72	64.9
45 years or more	39	35.1
<i>Educational level</i>		
Incomplete elementary school	07	6.3
Complete elementary school	10	9.0
Incomplete high school	04	3.6
Complete high school	37	33.3
Incomplete higher education	28	25.2
Complete higher education	18	16.2
Post-graduation	07	6.3
<i>Combined educational levels</i>		
Up to 8 years of study	17	15.3
More than 8 years of study	94	84.7
<i>Marital Status</i>		
Single	54	48.6
Married	46	41.4
Separated/divorced	10	9.0
Widow	01	0.9
<i>Income</i>		
Up to 1 minimum wage	6	5.4
From 1 to 2 minimum wages	28	25.2
From 2 to 3 minimum wages	21	18.9
From 3 to 4 minimum wages	11	9.9
From 4 to 5 minimum wages	12	10.8
More than 5 minimum wages	33	29.7
<i>Current work situation</i>		
Active	77	69.4
Absent from work	34	30.6

Regarding the quality of life, the domain in which the workers had the best scores were functional ability (mean=85.5; SD=17.1). Social functioning (mean=76.0; SD=27.1); general health (mean=74.2; SD=18.6); pain (mean=71.0; SD=24.4); and mental health (mean=70.2; SD=15.4) had moderate values for quality of life. The domains role-physical (mean=69.1; SD=38.7), vitality (mean=65.9; SD=17.2), and role-emotional (mean=61.6;

SD=42.0) had results that indicate worse quality of life.

In the ICT evaluation, the workers had the mean result of 39.48 (SD=6.76). Considering the categories, 10 workers (8.1%) were evaluated with a lower ability for work, 18 (16.3%) with moderate ability, 58 (52.7%) with good ability, and 25 (22.7%) with optimal ability (Image 1).

Image 1. Work ability of users attended by the municipal health network (n=111), Uberaba-MG, 2013.



The tests verifying the association between sociodemographic and occupational variables indicated that work ability had a significant association with age ($r=-0,286$; $p=0,002$), educational level ($p=0,000$), being absent from work ($p=0,000$), and the duration of the absence ($r=-0,457$; $p=0,000$). There was no significant difference between work ability

and gender variables ($p=0.209$), income ($r=0.182$; $p=0.057$), marital status ($p=0.844$) and time at the job ($r=0,106$; $p=0,274$). Tables 2 and 3 present the complete description of the results of the association between sociodemographic and occupational variables and work ability.

Table 2. Comparison between the work ability and the sociodemographic and occupational variables of workers attended by the municipal health network (n=111), Uberaba-MG, 2013.

Variables	Work ability (n=111)		P-value
		Mean (SD)	
Sex	Female	39.90(7.07)	0.209
	Male	38.73(6.20)	
Marital Status	Has a partner	39.54(6.57)	0.844
	Does not have a partner	39.43(6.95)	
Educational level	> 8 years of study	34.44(9.51)	0.000
	Up to 8 years of study	40.76(5.25)	
Current Work Situation	Active	41.45(4.34)	0.000
	Absent from work	35.07 (8.90)	

The ICT was significantly associated to all quality of life domains: functional ability ($p=0.000$; $r=0.461$), role-physical ($p=0.000$; $r=0.587$), pain ($p<0.01$; $r=0.47$), general health ($p<0.01$; $r=0.49$), vitality ($p<0.01$;

$r=0.25$), social functioning ($p<0.01$; $r=0.61$), and mental health ($p<0.05$, $r=0.24$). These results indicated that the greater the quality of life in these domains, the greater the work ability of the workers evaluated (Table 3).

Table 3. Correlation between the work ability and the sociodemographic, occupational, and quality of life variables of workers attended by the municipal health network (n=111), Uberaba-MG, 2013.

Variables	Work ability		
	r	P-value	
<i>Sociodemographic</i>	Age	-0.286	0.002
	Income	0.182	0.057
<i>Occupational</i>	Time in the job	0.106	0.274
	Duration of absence	-0.457	0.000
<i>Quality of life</i>	Physical Functioning	0.461	0.000
	Role-physical	0.587	0.000
	Pain	0.528	0.000
	General Health	0.469	0.000
	Vitality	0.338	0.000
	Social aspects	0.498	0.000
	Role-emotional	0.462	0.000
	Mental Health	0.373	0.000

DISCUSSION

Results found indicate an association between work ability and a better quality of life of workers attended in primary care. Most participants were women, which can be associated to the patterns of search and use of health services in the Brazilian population. The frequency of search for attention in the primary health care units is predominant among females and attributed to factors such as reproductivity, age, worse health perception, and greater incidence of non-fatal chronic diseases¹⁵.

Regarding income and years of study, the population of the study is in a good position when compared to the general population of workers, with higher income and educational levels¹⁶. In the city of Uberaba/MG, most health establishments that offer primary care are public. Thus, certain types of health services offered in the primary care units are options used by the population from all income brackets¹⁷.

It stands out that, among the participants, a high number of workers were absent from their work for a relatively long period of time. Workers absent from work tend to have a worst quality of life and worst health perception when compared to workers who are active in the job market¹⁸, reiterating the importance of actions and policies aimed

at inserting adult individuals in work activities. Considering that, public health services should be mobilized to make available types of assistance and treatment that can help workers absent from work to come back to work.

For the promotion and maintenance of the quality of life of the individuals, the adoption of preventive and effective measures to access jobs and the existence of interventions that minimize the occurrence of absence from work¹⁸. However, the Unified Health System still has few services of professional rehabilitation, and public policies targeted at the health of the worker still need to be improved to guarantee integral health care¹⁹.

When the results specifically related to the quality of life of the population are analyzed, low means can also be observed, especially in the domains related to physical, aspects, vitality, and role-emotional, in comparison to the results found in other Brazilian studies^{20,21}. These results are not expected for users of primary care units. That may indicate the need for a closer evaluation of the health of the workers in Uberaba, and for a more detailed evaluation of factors associated to their quality of life.

Regarding their ability for work, it was found that only 75% of workers were

classified as having a good or optimal ability for work, with an average of 38.5 points in the ICT. These results are worse than those found by workers in the sectors of industry⁴, health^{10,22}, garments²³, and education²⁴. Broadly speaking, the ability for work is understood as all capacities required for a certain type of work to be conducted; from a more restricted perspective, it expresses one's aptitude for a certain role. In practice, it represents combinations of human resources regarding physical, mental, and social demands of work, as well as organization culture and work environments¹¹.

Considering these descriptive results of work ability, it is important to survey the occupational profile of the population cared for in the health units analyzed. The bad or declining ability for work is associated to the development of health conditions related to psychosomatic disorders²⁴, mental disorders²⁵⁻²⁷, and physical disfunctions^{28,29}.

Therefore, the survey of the occupational profile of the population in the area within the scope of health units can help in the diagnostic and treatment of work-related diseases and in finding connections between the decline of work ability and the diseases of the worker. Additionally, this type of action developed by primary health care teams can culminate in inter-sectoral partnerships with the Reference Centers for Worker Health (CEREST) and with the National Institute of Social Security (INSS), guiding and directing workers so that they have access to the social security benefits they are due.

An association was found between work ability and age, educational level, and duration of absence from work, corroborating other studies conducted in Brazil^{11,30,31}. The age of the participants varied little. More than 70% of the sample was made up of workers above 44 years of age, reiterating the decline in work ability from 45 years of age onward, a tendency already documented in literature^{11,30,31}. Researches indicate a positive association between educational levels and work ability^{32,33}, confirming the results presented that show a lower ability for work among professionals with low

educational levels (less than eight years of age). Generally, a higher educational level is associated to a higher chance of insertion in work posts which are more qualified and less aggressive towards one's health³³.

The emotional dimension was found to be the worst domain of quality of life. The adverse consequences related to health, precarious work conditions or unemployment may lead for social and affective bonds to be unstructured, as well as to the restriction of rights, socioeconomic insecurity, self-esteem reduction, feelings of loneliness and failure, the development of mental disorders, and the increased consumption or addiction to drugs³⁴.

Generally, studies on mental health at work, as well as epidemiological and social security data, have been suggesting an increase in the number of mental disorders and in the behavior related to work and to the increasing diminution of the emotional life of the workers². The connections between these variables was also investigated in another study³⁵, which found similar results, showing that, the higher the perceived levels of quality of life, the lower the stress and the greater the ability for work.

Role-emotional, social aspects and mental health had worse evaluations among workers absent from work than from active workers, in another study conducted with primary health care users¹⁸. Work, for men, is a rich means for the production of life of every individual. It creates existential meaning and contributed to structure personality and identity³⁴.

Considering this, an unemployed person, with no income, excluded from the world of work, and living at the margins of society, should be observed with particular care by the professionals in the health field, who should seek to intervene in the symbolic and material relations caused by absence from work, thus contributing to prevent and mitigate physical and mental health problems that stem from this situation³⁴.

The quality of life domain, related to functional ability, also had a significant correlation to work ability. This correlation between work ability and functional ability

indicates that, beyond health, there is another important determinant for work ability. Functional ability is the ability of the individual to perform daily activities, being autonomous.

A study conducted with the same population confirms the correlation between ability for work and functional ability, indicating that workers with better functional ability have better ability for work³⁶. This association was also observed in another study that found a relation between a worse perception of work ability and a worse perception of functional ability²⁰. In turn, another study³⁷ found that functional ability and the work ability among people with chronic musculoskeletal pain are strongly correlated, meaning that functional ability is very important in the prevention of work disabilities.

Considering work ability and the quality of life domains, the role-physical had a strongly significant correlation. In general, the decline in health can restrict the physical and functional capacities and, consequently, affect one's ability to work. This result ratifies the findings of other studies in which characteristics of the work and its physical demands impacted in a negative way the ability of the worker to answer to these physical exigences^{7,23,30,38}. Therefore, functions that are highly physical demanding have been associated to lower work ability^{22,29,37}, reiterating the need to develop preventive actions directed to the aspects connected to the physical domain.

The pain domain also had a significant impact in work ability. This result is in accordance to another research according to which chronic muscular pain diminished the work ability of workers from three metropolitan cities in Sweden³⁹.

Another study³⁰, which followed the work ability of workers in an industry, found a negative and moderate correlation between musculoskeletal pain and work ability, indicating the influence of the presence and intensity of pain in the current determination of work ability. On the other hand, interventions based on muscular strength training contribute to the diminution of pain

and of medical leaves³⁹, which also makes clear the importance of preventive actions targeted at the functional ability of the workers.

In this setting, intervention programs targeted at an improvement in work ability and quality of life are essential to the maintenance of the productivity of work organizations, reducing the number of work absence and preventing diseases^{9,13,23}. The results point at a relation between the ability for work and quality of life, and indicate that the development of activities to promote the health and quality of life of workers is paramount.

Good work conditions, allied to the workers' access to education during adolescence, must be implemented to eliminate the factors that will negatively impact on the work ability²³. These initiatives include, for instance, ergonomic aspects that can help prevent health problems, associated to better structural and environmental conditions from these same work environments.

In addition, it is necessary for the worker to have access to a professional education made available by the public sector, through the financing of technical courses, educational actions for work insertion and specialization, using resources from the Ministry of Education, State and Municipal Technical Schools, Public Schools, Universities, Ministry of Work, and others^{19,40}.

CONCLUSION

The results found indicate that the ability for work is significantly correlated to the domains of quality of life. The study showed a significant correlation between gender, educational level, and duration of absence from work with work ability. This result corroborates the theoretical framework about work ability, incorporating in the analysis a multi-factorial and multi-dimensional perspective.

This study has some characteristics that may limit its applicability, such as the cross-sectional design. It presents results that indicate an association between quality of life and work ability, but it is impossible to

establish causal relations between the investigated variables. Longitudinal studies that monitor work ability should be delineated together with the evaluation of associated factors. The characterization of the sample showed that the income and the educational levels were above the average for the Brazilian population who are attended by public health services. Thus, the generalization of these results to other studies and populations must be carried out with care.

Despite these limitations, this study explores the relation between work ability and quality of life in the general adult population attended by a primary care service. This information can give support to epidemiological vigilance actions, and to actions regarding workers' health, targeted at interventions in primary health care. Its results can also support the actions of multiprofessional teams in the implementation of actions to promote health and quality of life, both individually and collectively.

REFERENCES

1. Bendassolli PF, Gondim SMG. Significados, sentidos e função psicológica do trabalho: Discutindo essa tríade conceitual e seus desafios metodológicos: explorando conceitos, variáveis e estudos empíricos brasileiros. *AvPsicol Latinoam*. 2014; 32(1):131-47.
2. Souza KR, Rodrigues AMS, Fernandez VS, Bonfatti RJ. A categoria saúde na perspectiva da saúde do trabalhador: ensaio sobre interações, resistências e práxis. *Saúde Debate*. 2017; 41(esp2):254-63.
3. Tuomi K, Ilmarinen J, Jahkola A, Katajarinne L, Tulkki A. Índice de capacidade para o trabalho. São Carlos: EduFSCar; 2005.
4. Costa CSN, Freitas EG, Mendonça LCS, Alem MER, Coury HJCG. Capacidade para o trabalho e qualidade de vida de trabalhadores industriais. *Ciênc Saúde Colet*. 2012; 17(6):1635-42.
5. Valinote HC, Pacheco LF, Viana FP, Formiga CKMR. Análise da qualidade de vida, capacidade para o trabalho e nível de estresse em trabalhadores da construção civil. *Rev Bras Ciênc Ambient*. 2014; (32):115-26.
6. Ciconelli RM, Ferraz MB, Santos W, Meinão I, Quresma MR. Tradução para a língua portuguesa e validação do questionário genérico de avaliação de qualidade de vida SF-36 (Brasil SF-36). *Rev Bras Reumatol*. 1999;39(3):143-50.
7. Tavakoli-Fard N, Mortazavi SA, Kuhpayehzadeh J, Nojomi M. Quality of life, work ability and other important indicators of women's occupational health. *Int J Occup Med Environ Health*. 2016;29(1):77-84.
8. Biallas B, Froböse I, Zöller M, Wilke C. Analysis of workplace health promotion and its effect on work ability and health-related quality of life in a medium-sized business. *Gesundheitswesen*. 2015;77(5):357-61.
9. McDonald M, Dibonaventura MD, Ullman S. Musculoskeletal pain in the workforce: the effects of back, arthritis, and fibromyalgia pain on quality of life and work productivity. *J Occup Environ Med*. 2011; 53(7):765-70.
10. Martinez MC, Latorre MRDO, Fischer FM. Testando o modelo da casa da capacidade para o trabalho entre profissionais do setor hospitalar. *Rev Bras Epidemiol*. 2016;19(2): 403-18.
11. Sampaio RF, Augusto VG. Envelhecimento e trabalho: um desafio para a agenda da reabilitação. *Rev Bras Fisioter*. 2012;16(2):94-101.
12. Berg TIJ, Elders LAM, Zwart BCH, Burdorf A. The effects of work-related and individual factors on the work ability index: a systematic review. *Occup Environ Med*. 2009; 66(4):211-20.
13. Rothman MG, Ortendahl M, Rosenblad A, Johansson A. Improved quality of life, working ability, and patient satisfaction after a pretreatment multimodal assessment method in patients with mixed chronic muscular pain: a randomized-controlled study. *Clin J Pain*. 2013; 29(3):195-204.
14. Prefeitura Municipal de Uberaba. Plano Municipal de Saúde 2014-2017. Secretaria Municipal de Saúde - Assessoria de Planejamento em Saúde, 2014. 157p. [cited in 10 jun 2016]. Available from: http://www.uberaba.mg.gov.br/portal/acervo/saude/arquivos/plano_municipal_saude.pdf
15. Stopa SR, Malta DC, Monteiro CN, Szwarcwald CL, Goldbaum M, Galvão Cesar CL. Acesso e uso de serviços de saúde pela população brasileira, Pesquisa Nacional de Saúde 2013. *Rev Saúde Pública*. 2017;51(Supl1):1s-11s.
16. Instituto Brasileiro de Geografia e Estatística. Pesquisa mensal de emprego: rendimento real habitual do trabalho principal [Internet]. Rio de Janeiro: IBGE; 2013 [cited in 10 jun 2015]. Available from: http://www.ibge.gov.br/home/estatistica/indicadores/trabalhoerendimento/pme_nova/defaulttab_hist.shtm

17. Instituto Brasileiro de Geografia e Estatística. Censo 2010 [Internet]. Rio de Janeiro: IBGE; [2011-2015] [cited in 10 jun 2015]. Available from: <http://censo2010.ibge.gov.br/>.
18. Dutra FCMS, Costa LC, Sampaio RF. A influência do afastamento do trabalho na percepção de saúde e qualidade de vida de indivíduos adultos. *Fisioter Pesqui*. 2016;23(1):98-104.
19. Poersch AL, Merlo ARC. Reabilitação profissional e retorno ao trabalho: uma aposta de intervenção. *Psicol Soc*. 2017;29(149496):1-10.
20. Queiroz DL, Souza JC. Qualidade de vida e capacidade para o trabalho de profissionais de enfermagem. *Psicol inF*. 2012; 16(16):103-26.
21. Milosevic M, Golubic R, Knezevic B, Golubic K, Bubas M, Mustajbegovic J. Work ability a major determinant of clinical nurses' quality of life. *J Clin Nurs*. 2011; 20(19):2931-8.
22. Rostamabadi A, Zamanian Z, SedaghatZ. Factors associated with work ability index (WAI) among intensive care units' (ICUs') nurses. *J Occup Health*. 2017; 59:147-55.
23. Augusto VG, Sampaio RF, Ferreira FR, Kirkwood RN, Cesar CC. Factors associated with inadequate work ability among women in the clothing industry. *Work*. 2015; 50(2):275-83.
24. Santino TM, Tomaz AF, Lucena NMG. Influência da fadiga ocupacional na capacidade para o trabalho de professores universitários. *Ciênc Trab*. 2017;19(59):86-90.
25. Gould R, Ilmarinen J, Järvisalo J, Koskinen S, editors. Dimensions of work ability: results of the Health 2000 Survey. Finland: FIOH; 2008.
26. Magnago TSBS, Prochnow A, Urbanetto JS, Greco PBT, Beltrame M, Luz EMF. Relação entre capacidade para o trabalho na enfermagem e distúrbios psíquicos menores. *Texto & Contexto Enferm*. 2015; 24(2):262-70.
27. Carvalho DB, Araújo TM, Bernardes KO. Transtornos mentais comuns em trabalhadores da Atenção Básica à Saúde. *Rev Bras Saúde Ocup*. 2016; 41(17):1-13
28. Magnago TSBS, Lima ACS, Prochnow A. Intensidade da dor musculoesquelética e a (in)capacidade para o trabalho na enfermagem. *Rev Latinoam Enferm*. 2012; 20(6):3-9.
29. Boschman JS, Noor A, Lundstrom R, Nilsson T, Sluiter JK, Hagberg M. Relationships between work-related factors and musculoskeletal health with current and future work ability among male workers. *Int Arch Occup Environ Health*. 2017; 90(6):517-26.
30. Alcântara MA, Sampaio RF, Assunção AA, Silva FCM. Work Ability: using structural equation modeling to assess the effects of aging, health and work on the population of Brazilian municipal employees. *Work* 2014; 49(3):465-72.
30. Prochnow A, Magnago TSBS, Urbanetto JS, Beck CLC, Lima SBS, Greco PBT. Capacidade para o trabalho na enfermagem: relação com demandas psicológicas e controle sobre o trabalho. *Rev Latinoam Enferm*. 2013; 21(6):1298-305.
31. Martinez MC, Latorre MRDO, Fischer FM. Testando o modelo da casa da capacidade para o trabalho entre profissionais do setor hospitalar. *Rev Bras Epidemiol*. 2016; 19(2):403-18.
32. Cordeiro TMSC, Araújo TM. Capacidade para o trabalho entre trabalhadores do Brasil. *Rev Bras Med Trab*. 2016; 14(3):262-274.
33. Pinheiro LRS, Monteiro JK. Refletindo sobre desemprego e agravos à saúde mental. *Cad Psicol Soc Trab*. 2007;10(2):35-45.
34. Petroski EC. Qualidade de vida no trabalho e suas relações com estresse, nível de atividade física e risco coronariano de professores universitários. [Thesis]. Florianópolis: Universidade Federal de Santa Catarina; 2013.
35. Valério RBC, Dutra FCMS. Envejecimiento funcional y capacidad de trabajo entre los trabajadores atendidos en la atención primaria. *Ciênc Trab*. 2016;18(57):190-5.
36. Lillefjell M. Function and work ability following multidisciplinary habilitation for individuals with chronic musculoskeletal pain. [Thesis]. Norway: Faculty of Social Sciences and Technology Management; 2007.
37. Alcântara MA, Assunção AA. Influência da organização do trabalho sobre a prevalência de transtornos mentais comuns dos agentes comunitários de saúde de Belo Horizonte. *Rev BrasSaúde Ocup*. 2016;41(e2).
38. Dellve L, Ahlstrom L, Jonsson A, Sandsjö L, Forsman M, Lindegård A, et al. Myofeedback training and intensive muscular strength training to decrease pain and improve work ability among female workers on long-term sick leave with neck pain: a randomized controlled trial. *Int Arch Occup Environ Health*. 2011; 84(3):335-46.
39. Schwartzman S, Castro C. Ensino, formação profissional e a questão da mão de obra. *Ensaio: Aval Polít Públicas Educ*. 2013; 21(80):563-624.

CONTRIBUTIONS

Fabiana Caetano Martins Silva e Dutra worked in the conception and delineation of the project, survey and analysis of data, and in the revision of the work. **Alline Alves de Sousa** took part in data analysis and in the critical revision. **Patrícia Maria Vieira** took part in the design of the project, its writing and revision. **Edna Aparecida Carvalho Pacheco, Rosimár Alves Querino** and **Ailton de Souza Aragão** took part in data discussion and in the revision.

How to cite this article (Vancouver)

Dutra FCM, Souza AA, Vieira PM, Pacheco EAC, Querino RA, Aragão AS. Work ability and quality of life of workers attended in primary care REFACS [Internet]. 2018 [cited in *insert day, month and year of access*]; 6(Supl. 2):600-610. Available from: *Insert Access link*. DOI: *insert DOI link*.

How to cite this article (ABNT):

DUTRA, F.C.M. et al. Work ability and quality of life of workers attended in primary care. **REFACS**, Uberaba, MG, v. 6, supl. 2, p. 600-610, 2018. Available from: *<insert access link>*. Access in: *insert day, month and year of access*. DOI: *insert DOI link*.

How to cite this article (APA):

Dutra, F.C.M., Souza, A. A., Vieira, P.M., Pacheco, E.A.C., Querino, R.A. & Aragão, A.S. (2018). Work ability and quality of life of workers attended in primary care *REFACS*, 6(Supl. 2), 600-610. Retrieved in: *insert day, month and year of access from insert access link*. DOI: *insert DOI link*.