

OCCUPATIONAL HEALTH

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PROF. DR . WAQAR AL-KUBAISY

8th March 2023

OCCUPATIONAL HAZARDS

An industrial worker may be exposed to five types of hazards, depending upon his occupation:

- (a) **Physical hazards**
- (b) **Chemical hazards**
- (c) **Biological hazards**
- (d) **Mechanical hazards**
- (e) **Psychosocial hazards.**



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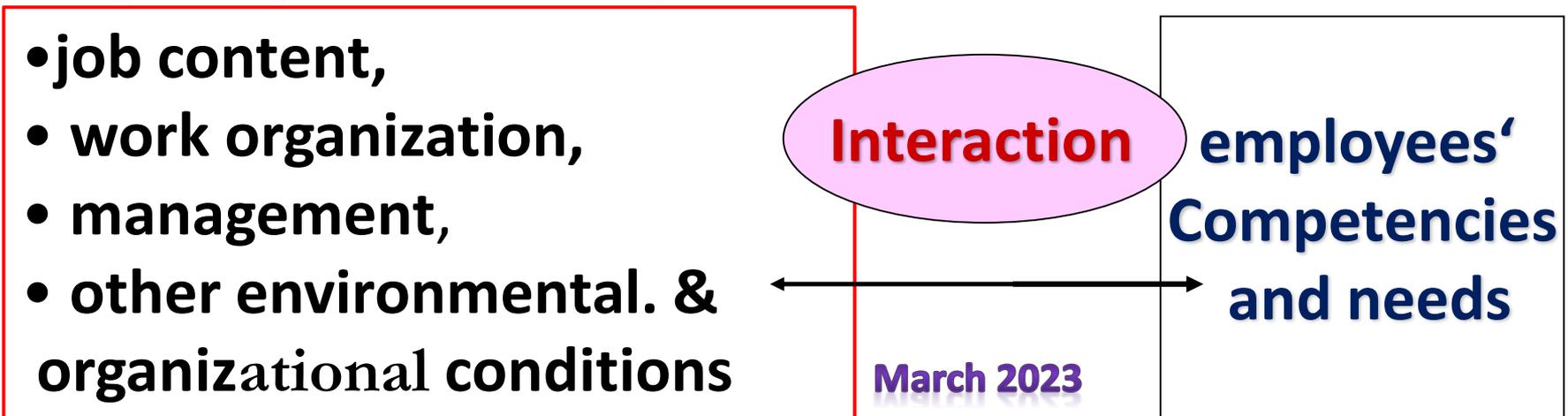
Psycho-social hazards at workplace



Definition:

defined in terms of **interactions** among **job content**, **work organization** and **management**, and **other environmental and organizational conditions**, **on the one hand**, and the **employees' competencies and needs on the other**.

As such, they refer to those interactions that prove to have a **hazardous influence** over employees' health through their **perceptions and experience**.



Psycho-social hazards at workplace Cont.

❑ **Psychosocial risks** at the workplace have been identified as **significant emerging risks**.

❑ **Linked to psychosocial risks, issues as:**

➤ **Work-related stress**

➤ **Workplace violence**

Both issues are **widely recognized as major challenges** to occupational health and safety



Psychosocial risks go hand in hand with the experience of **work-related stress**.

Work related stress



Introduction:

- ❖ **Workplace stress** is an **epidemic** that has hit the workplace in the current era of **high technology**.
- ❖ **Managers must prevent stress** from affecting their workers as it is **very costly** to correct the situation later
- ❖ It is capable of **reducing productivity** resulting in the
- ✓ **decline of the performance** of their workers.
- ❖ **Implementing an effective strategy**
- ✓ will prevent organizations from bearing ,losses and
- ✓ will enable **workers to enjoy** a healthy, harmonious and
- ✓ quality life.
- ✓ Furthermore it will **enhance the productivity** of the workers and organizations

Work related stress

As health is not merely the absence of disease or infirmity but a positive state of complete physical, mental and social well-being (WHO, 1948),

A healthy working environment is one in which there is **not only an absence of harmful conditions but an abundance of health-promoting ones.**

❑ Stress occurs in a wide range of work circumstances but is **often made worse when employees feel:**

➤ They **have little support** from supervisors and colleagues,

➤ **Little control** over work processes.

❖ There is often **confusion** between

➤ **pressure** or challenge and

➤ **stress**



Pressure at the workplace is **unavoidable** due to the demands



- ❑ **Pressure** at the workplace is **unavoidable** due to the demands of the modern work environment.
- ❑ **Pressure** perceived as **acceptable** by an individual, may even **keep workers alert, motivated** able to **work & learn**, depending on the available resources and personal characteristics

❑ However, when that **pressure becomes excessive** or otherwise **unmanageable** it **leads to stress**.

So

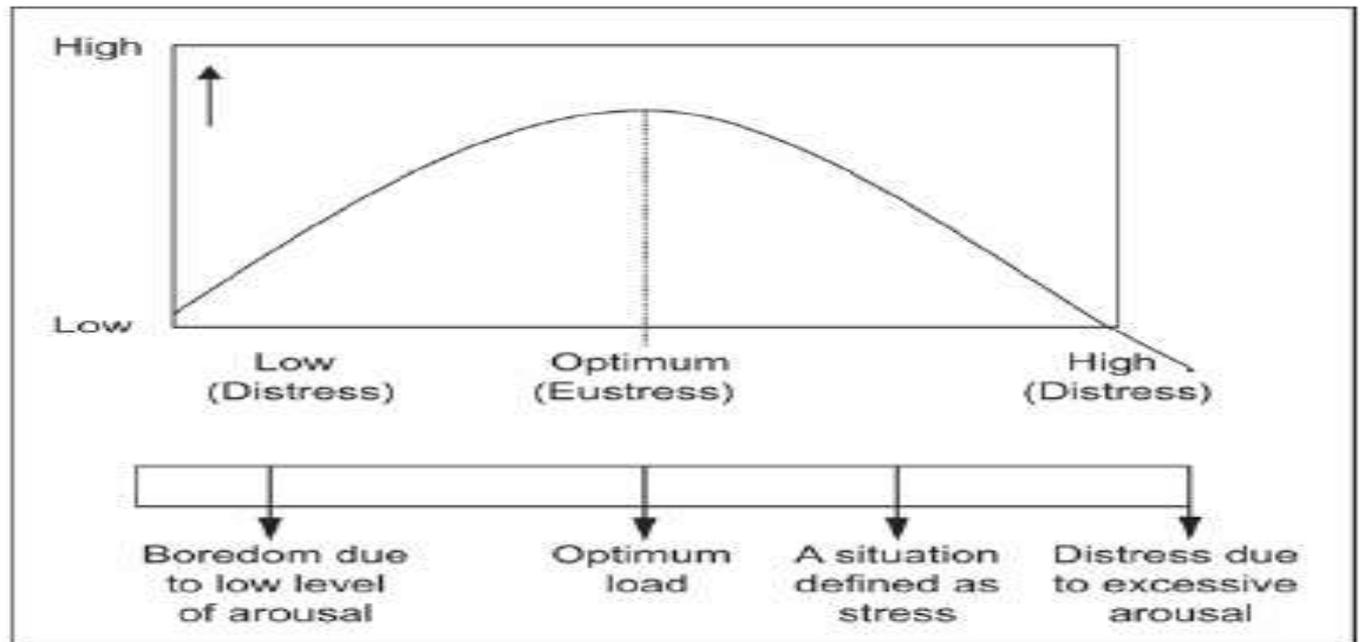
- ❑ There is also a **POSITIVE type of Stress** that encourages workers to be more aggressive so as **to increase** their productivity; **eustress**

- ❑ **Eustress** is experienced **moderately** and is capable of **motivating people to achieve their goals and succeed in completing their task**.

❖ After the optimum level, **more stress**

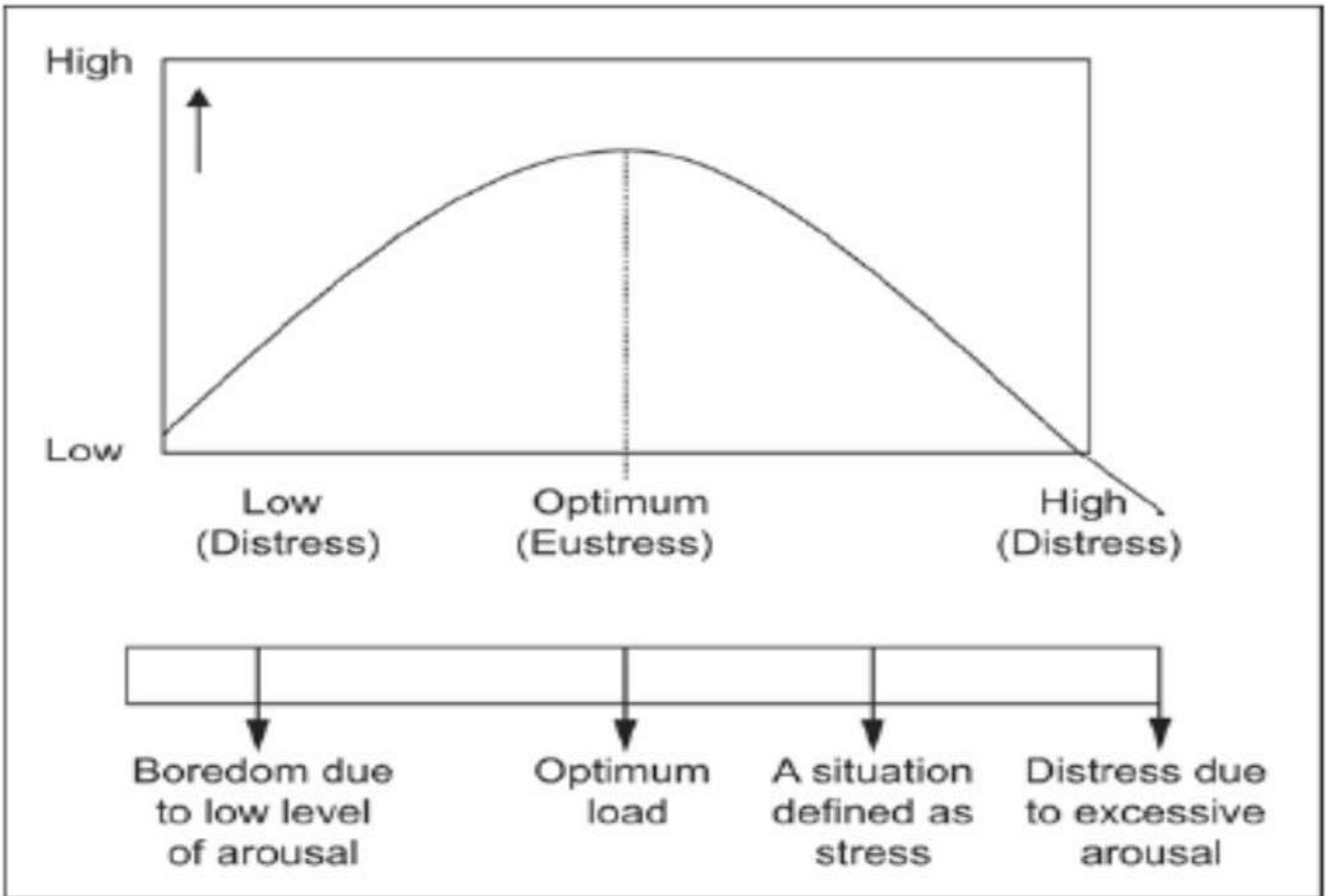


- ❖ After the optimum level, more stress will have a **NEGATIVE** effect on the performance of workers.
- ❖ A low level of arousal will also cause **workers to experience Distress**.
- ❑ Therefore, workers must be motivated so that they can **achieve the optimum level of arousal** or stimulation in order to improve their performance.



Yerkes-Dodson's curve

Source: Adapted from Nelson & Quick (2005)



Yerkes-Dodson's curve

Source: Adapted from Nelson & Quick (2005)

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The effects of Distress can be perceived in **two forms**, i.e.

1. On Individuals and
2. On Organizations as a whole.



The effects of distress on individuals

can have the following three negative effects:

- A. Psychological effects such as *depression, fatigue* and
- B. Diseases such as *heart disease, stroke and so on*; and
- C. Behavioral effects such as *violence, abuse of power*.



**The effects on Organizations,
distress will result in additional costs due to:**

- **Absenteeism,**
- **High turnover rate,**
- **Decline in workers performance,**
- **Decline in quality and productivity,**
- **Increasing **compensation** claims due to **accidents** and**

Work-related Stress.

- **Increasing **tardiness** (Slowness)**
- **Decreasing **growth rates** and **profit****





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Work related stress

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Work-related Stress

Definition:

Work-related stress is a **pattern of reactions** that occurs when workers are presented with work demands not matched to their knowledge, skills or abilities and which challenge their ability to cope

Work-related stress

- ❖ is the **response** people may have when presented with work demands and pressures that **are not matched**
- ❖ to their knowledge and abilities and which **challenge their ability to cope.**



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□ Stress-related hazards at work



Stress related hazards at work can be divided into:

I. Work content.

II. Work context.

I Work content includes:

1. Job content:

- ✓ monotony,
- ✓ under-stimulation,
- ✓ meaningless of tasks,
- ✓ lack of variety, etc.

2. Work load and work pace طريقة السير :

- ✓ too much or too little to do,
- ✓ work under time pressure, etc

3. Working hours:

- strict or inflexible,
- long and unsocial,
- unpredictable,
- badly designed shift systems.

4. Participation and control:

- lack of participation in decision-making,
- lack of control over work processes, pace, hours, methods, and the work environment

II- Work context includes:

1. Career development, status and pay:

- ✓ job insecurity,
- ✓ lack of promotion opportunities,
- ✓ under- or over-promotion,
- ✓ work of 'low social value',
- ✓ piece rate payment schemes,
- ✓ unclear or unfair performance evaluation systems,
- ✓ being over- or under-skilled for a job

2. Interpersonal relationships:

- inadequate, inconsiderate or **unsupportive supervision,**
- **poor relationships** with colleagues,
- **harassment and violence,**
- **isolate or solitary work,** etc



3. Role in the organization

unclear role,
conflicting roles.

4. Organizational culture:

- poor communication,
- poor leadership,
- lack of behavioral rule,
- lack of clarity about organizational objectives, structures and strategies.



5. Work-life balance:

- **Conflicting** demands of **work & home**,
- **lack of support** for **domestic problems** at work,
- lack of support for work problems at home,
- **lack of organizational rules** and **policies** to support work-life balance

□ Consequences of work-related stress Psychosocial hazards

1. Physiological reactions
2. Emotional reactions
3. Cognitive reactions
4. Behavioural Reactions
5. Long-term risks
6. Mental and physical disorders

1. Physiological reactions to stress:

- increasing heart rate
- increasing blood pressure
- increasing muscle tension
- sweating
- increased adrenaline production and secretion,



2. Emotional reactions may include:

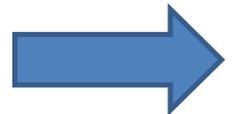
- fear
- irritation
- depressive mood
- anxiety
- anger
- diminished motivation

3. Cognitive reactions may include:

- Decreased attention
- Narrowing of perception
- Forgetfulness
- less effective thinking
- less problem solving,
- Reduced learning ability

4. Behavioural Reactions may include:

- Decreasing Productivity
- Increasing Smoking
- Increasing Drug Use And/Or Alcohol Consumption
- Making Errors,
- Reporting Sick



5. Long-term risks of reduced health and disease for the worker expressed in :

- high blood pressure
- angina complaints
- burnout and affective disorders الإرهاق والاضطرابات العاطفية
- depression
- disturbed metabolism (risk of Type II diabetes)
- alcohol dependence,
- musculoskeletal disorders



- ## 6. When exposure to stress does not decrease and continues over prolonged periods, workers do not have enough time to recover.
- ❖ Stress may eventually cause **mental and physical disorders**
 - ❖ and **impair the immune system**, resulting in
 - ❖ **sickness** and **absence** from work and **work disability**

MANAGING WORK-RELATED STRESS

Employees are less likely to experience work-related stress
when:

- A. **Demands** and pressures of work are **matched to** their knowledge and abilities.
- B. **Control** can be exercised **over their work** and the way they do it.
- C. **Support** is received from **supervisors** and **colleagues**.
- D. **Participation** in decisions that concern their jobs is provided.

Managing Work-related Stress:

- A. Actions and solutions should primarily focus **on changes** in the **organizational** culture and the **organization of work**,
- B. Improving workers' individual **abilities**, **skills** and coping capacity through **training and education**



Managing Work-related Stress:

Psychosocial hazards

A. Actions and solutions should primarily focus on changes in the organizational culture and the organization of work, such as:

- 1, Redistributing work** among colleagues,
- 2. Introducing job rotation** (moving to a number of different tasks usually according to a rotation plan),
- 3. Introducing job enlargement** (adding more tasks of the same difficulty),
- 4. Introducing job enrichment** (adding more difficult tasks),
- 5. Improving managerial ability** (for example by management skills training)
- 6. Ergonomic improvements** in the work place
- 7. Improving working schedules and working and resting times** (for example **March 2023** forward or backward rotation of shifts)
- 8. Implementing direct worker consultation** at work,

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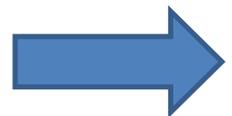
Actions focus on organization culture and work, Cont. ..

8. Implementing **direct worker consultation** at work,
9. Improving **communication** between **groups** of **workers**, or between the **client** and the workers, and between workers and **supervisors**,
10. Providing **clear job descriptions** or tasks,
11. Providing **clear job promotion rules** and **paths**.



Note : The **advantage** of this approach is that:

- ❑ it deals directly with the **causes of stress** in the work environment,
- ❑ may have a **positive effect** on the **total workforce** of a company.



B. Improving workers' individual abilities, skills and coping capacity through training and education, such as courses in:

1. **Time management,**
2. **Dealing** with **aggressive customers,**
3. **Lifting heavy goods,**
4. **Using appropriate** machines or equipment,
5. **stress management,** and training,
6. **seeking support** from **family, community,** and religion and spirituality.



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Note: This individual-focused approach has **two disadvantages** when there are major problems in the work place:

1. The **beneficial effects** on stress symptoms are often **short lived;**
2. **Important causes of stress** in the work environment are **ignored** and will **continue to cause work stress.**

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1. The **beneficial effects** on **stress symptoms** are often **short lived**;
2. Important **causes of stress** in the work environment are **ignored** and will continue to cause work stress.

As a general rule, **organizational strategies** to prevent work-related stress **should be given top priority.**

However, even the **most Reliable efforts to improve working conditions** are **unlikely to eliminate stress completely** for all workers.

□ For this reason, **a combination** of the **organizational** and **individual approach is** often the **most useful** way to **prevent** work-related stress while staying focused on **organizational and work-organizational measures.**

MANAGING WORK-RELATED STRESS:

The occupational health service, professional psychologists or professionals with a related expertise, if they are available, can advise the employer about prevention measures or interventions which are best indicated for the identified risk situations.

MANAGING WORK-RELATED STRESS: Examples:

Box 7: Examples of actions to prevent work-related stress

Problems:	Possible actions:
High workload	<ul style="list-style-type: none">• Redistribution of work among colleagues• Prioritize work/tasks• Offer a training course (e.g. on stress or time management)
Monotonous and routine work	<ul style="list-style-type: none">• Make sure that where possible workers have some control over work pace• Make sure there are enough breaks• Job rotation (moving to a number of different tasks usually according to a rotation plan)• Job enlargement (add more tasks of same difficulty)• Job enrichment (add more difficult tasks)• Where necessary, offer additional training or education

MANAGING WORK-RELATED STRESS: Examples

Physical risks at the work place	<ul style="list-style-type: none">• Replace the risk producing machines or devices by others that produce less risk• Shield the source of risk (noise or other)• Inform workers about the negative effects of exposure to these risks• Offer workers personal protection devices (ear plugs, hand cuffs to protect them from hot surfaces etc.)
Conflicting or unclear tasks or roles	<ul style="list-style-type: none">• Make a clear job description with clear and appropriate demands
Insufficient work experience for the job	<ul style="list-style-type: none">• Provide suitable training where necessary• Appoint a personal mentor at work• Offer help and encourage help from colleagues• Leave more difficult tasks to other more experienced colleagues
Lack of social support from manager and/or colleagues	<ul style="list-style-type: none">• Offer managers training to learn how to treat their workers• Arrange regular team building activities (dinner after work, team excursions, or other social activities)• Have lunch and coffee breaks together• Stimulate and reward team work• Arrange regular meetings in which work problems can be discussed and solved (together)
Work-home interface	<ul style="list-style-type: none">• Support or provide child care facilities• Flexible working times, such as temporary and/or part-time work• Teleworking/working from home• Address the needs of the family, children in addition to care for the worker• Provide worker transportation when needed



