percentage of total assessment time. The most relevant of the 2nd component were the daily EE in moderate-to-vigorous intensity, the daily EE in ≥2-min of moderate-to-vigorous intensity, and the daily EE in ≥10-min bouts of moderate-to-vigorous intensity, all expressed as percentage of total EE. The most relevant of the 3rd component were the daily EE in very light intensity after midday, the daily EE in very light intensity, and the daily EE in ≥2-min bouts of very light intensity after midday, all in METs-min·day^{-1}.

Cluster analysis, performed on the three principal components, identified five distinct clusters (Figure 22). Table VI presents the characteristics and physical activity measures of these groups. Cluster 1 (n=216, 22%) was characterized by higher BMI, more dyspnoea, higher ADO index, more time and EE in very light intensity, and less time and EE in light and moderate-to-vigorous intensities compared to other clusters. Cluster 2 (n=415, 41%) had more dyspnoea and a higher ADO index than clusters 3 and 5. Similarly to cluster 1, this cluster spent more time and EE in very light intensity and less time and EE in moderate-to-vigorous intensity than other clusters. Cluster 3 (n=184, 18%) exhibited a higher FEV1 than cluster 2, while cluster 4 (n=165, 17%) was younger than clusters 1 and 2 and had a lower BMI compared to cluster 2. Moreover, cluster 3 spent more time and EE in light intensity and less time and EE in moderate-to-vigorous intensity than clusters 4 and 5, while cluster 4 spent more time in light intensity compared to cluster 5. Cluster 5 (n=21, 2%) was characterized by less time in very light intensity and more time in moderate-to-vigorous intensity compared to other clusters. Figure 23 presents the daily time in activities of different intensities by the clusters, highlighting the mixed arrangements of physical activity. Figure 24 presents the daily physical activity hourly patterns of the clusters. In all clusters the peak of intensity during the day occurred before midday, and in general weekdays and weekend days presented a similar pattern, especially in more inactive clusters. Hourly patterns after synchronisation of the waking up moment are presented Figure 25. Moreover, increasing AUC-values were found from clusters 1 to 5 (Table XIX).